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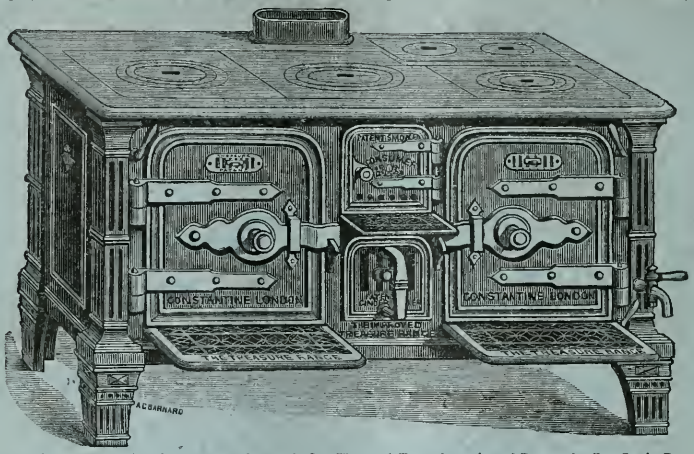

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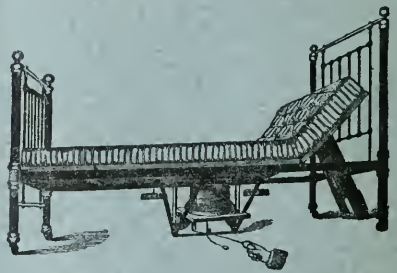

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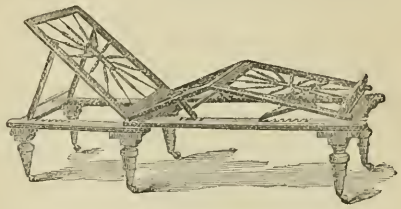

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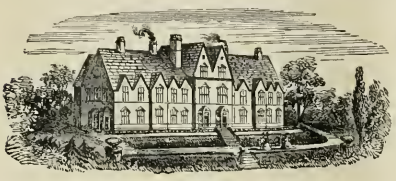

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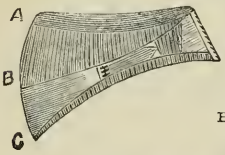

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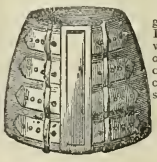

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'It seems needful to explain in a few words the circumstances under which this pamphlet comes to be published. I have, for several years past, been frequently appealed to, by all sorts of people, on all sorts of occasions, for a statement of the facts which would enable them to answer the strong assertions of a certain class of agitators who describe themselves as anti-vaccinators. These gentlemen are so very persistent in their agitation, and so elaborately wrong in their statistics and arguments, that it has really become a matter of no small difficulty for a technically uninstructed person to examine their figures or test their allegations.

'On the occasion of two of the most recent Parliamentary elections, I was hurriedly applied to by candidates for references to the sources from which to answer their anti-vaccinating persecutors. Members of Parliament and magistrates are, indeed, often at their wits' ends to know where to find the true facts which these gentlemen delight to misrepresent.

'I have, of course, been able to refer inquirers to the standard works on the subject, and to the Registrar-General's statistics: but a need evidently exists for some concise statement of the merits of vaccination, which will obviate the necessity of individual research into the evidence in its favour. As a matter of fact, I have not been able to refer my inquirers to any such statement, and it seemed to me, therefore, that there would be great advantage in the truth about vaccination being placed before the public in a handy and readily accessible form, so as to supply the materials for an answer to the numerous objections of the anti-vaccinators. Under these circumstances I consented, at the request of the National Health Society, to deliver a public lecture on the subject. This lecture was given at the Hall of the Society of Arts, on Jan. 27 last, and is now, in compliance with very numerous requests, printed (with considerable additions) in the present pamphlet.'

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B.—Letter of the Local Government Board on the subject of repeated vaccination prosecutions.
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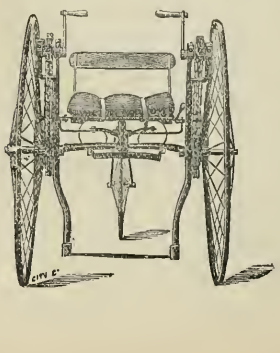

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Article 1289.

BRICON ON THE BIBLIOGRAPHY OF CHOLERA-PARASITES.

Bricon (*Le Progrès Méd.*, No. 32, 1883) gives a summary of the bibliography of the cholera-parasite. Pouchet (*Infusoires Microscopiques dans les Déjections Cholériques*, Acad. des Sciences, 23 Avril, 1849), and Wahl (Virchow's *Archiv*, 1861) described the *vibrio rugula* in cholera stools; and the observation was confirmed by Hassall in 1873. In the same year Pouchet, Brittan, Swayne, and Budd described *annular bodies*, *cholera-cells*, and cholera-fungi, classed by Busk and Williams as belonging to the tribe *Uredo*. Grove saw *granular bodies* in the urine of cholera patients. Klob (*Path. Anat. Stud. über das Wesen des Choleraprocesses*, Leipzig, 1867) found *zooglœa* colonies, which developed into *leptothrix*. Thomé (Virchow's *Archiv*, Band xxxvii., 1867) described a fungus which he called *cylindrotænium choleræ Asiaticæ*.

Pacini, in 1854, noticed the presence of numerous bacilli in cholera-stools, which multiplied in the intestinal epithelium and destroyed it. Bouchardat (quoted by Nicaise, *Etude sur le Choléra*, Paris, 1868) thought cholera due to a poison produced by infusoria, which produced the fermentation of the marshes of the Ganges.

Hallier (*Das Cholera-Contagium*, Leipzig, 1867) attributed cholera to micrococci, which were spores of *urocystis occulta*. (*Parasitologische Untersuchungen*, Leipzig, 1868, p. 49–51. Die Cholera-Untersuchungen der Engländer in Ost-Indien, *Zeitschrift für Parasiten-Kunde*, Jena, 1869, p. 216; *Zur Geschichte des ersten Ausbruches der Cholera in Hamburg*, Jena, 1870, p. 87).

Gietl (*Die Cholera*, Munich, 1855) ascribed the disease to parasitic organisms. Lewis and Cunningham (*Microscopical and Physiological Researches into the Nature of the Agent or Agents producing Cholera*, Calcutta, 1872) found and described in cholera-blood masses of protoplasm, larger but more transparent than the white blood-discs, without nuclei or cellular membrane, endowed with amœboid movements and containing very fine granulations.

Danet (*Des Infiniment Petits rencontrés chez les Cholériques*, Paris, 1873) attributed cholera to a cryptogam, having great analogies to oïdium albicans, but differing from it by a more abundant mycelium, larger size, and more frequent absence, especially in the young state, of the transverse septa of the sporiferous cells. He maintained that it was the same organism that had been described by Thomé, Pacini, and Klob.

Nedsoctski (*Zur Micrographie der Cholera*, Dorpat, 1872) found bacteria in the dejections and vomit, urine, blood, &c., of cholera patients.

Martin (*Entstehungs- und Verbreitungsweise der Cholera*, *Wiener Med. Wochensch.*, 1873), and Schweninger have seen the urinary tubules completely blocked with bacilli.

Hayem and Raynaud (*Société Méd. des Hôpitaux*, 1873, pp. 262 and 267) found numerous organisms in cholera-stools, but no special form. There were three species, bacterium, vibrio, and bacteridium (Davaine). Such parasites are found in all stools in health or disease, and at any time of life.

Robert Saundby, M.D.

Article 1290.

KOCH ON THE DETECTION OF MICRO-ORGANISMS.

The older methods employed under the names of aëroscopy, &c., for the microscopical examination of solid particles floating in the air, and arrested by cotton, glycerine, &c., failed to distinguish living and dead organisms, even organic and inorganic matter. The liquid cultivations, with which the name of Pasteur is associated, do so much; but the fluid, turbid to the naked eye, exhibits under the microscope only a confused mass of organisms of all kinds, and is totally unfit for artificial cultivation, since it gives no means whereby the products of the implanted germs may be distinguished from those which have gained access by accident.

The principle of pure cultivation, viz., the employment of a solid medium, we owe to Koch; and in his hands it has recently been so improved as regards details, that it has become to some extent both a qualitative and a quantitative test. In his address to the Aertzetag at Berlin, read on May 23 last, Dr. Koch describes the methods he employs at present in the bacterioscopic examination of earth, air, and water. (The paper is published in the *Allgemeine Med. Central-Zeitung* for July 2.)

For the examination of air he takes a freshly boiled potato, slices it, and, after exposing a slice for a short time to the air in question, allows it to stand some days in a warm room under a bell-glass, covered with wet blotting paper; the glass, like all other apparatus, having previously been sterilised by heat. After a few days, the potato will be seen to be covered with points of various colours, each point representing the progeny of a single germ or organism. Numerous species may be recognised even by the naked eye, but each patch, of course, consists of but one.

Another method consists in the employment of a thin size or solution of gelatin, 5 per cent. or 10 per cent., according to the temperature of the place or season. This may be used alone, or as the means of solidifying any desired fluid. A favourite cultivation fluid of Koch's, especially suited for bacteria, consists of veal broth or other infusion of meat with 5 per cent. of gelatin, 1 per cent. of dry pepton, 0·5 per cent. of table salt, and carbonate of soda to exact neutralisation. These media are sterilised by boiling.

For the examination of air, a small glass cup, containing some of the gelatin previously sterilised, is let down by a strip of brass foil to the bottom of a glass cylinder closed by a large plug of wadding. The whole apparatus and contained air are then sterilised by long exposure to a temperature of 100° C. When the size has set, the vessel is taken to the place to be examined, and the plug removed for two, twelve, or twenty-four hours, so as to allow the germs to settle down on the surface of the size; the plug is replaced, and two or three days are allowed for their development into colonies, as described in the case of the potato. The size, or thin gelatin, has this advantage over the potato that, being transparent, it can be examined by transmitted as well as by reflected light.

For quantitative examinations, *i.e.* to ascertain how many germs are present in a given volume of

air, Dr. Koch employs a special apparatus designed by Dr. Hesse, in which the gelatin is spread over the floor of a horizontal tube as a layer of uniform width; and, by means of an ingeniously contrived method of aspiration, a known volume, from 2 to 20 litres of air, is drawn through the tube so slowly that the germs, sinking to the bottom in virtue of their gravity, are all deposited in transit on the gelatin in the first half of the tube.

For the examination of water, Dr. Koch formerly shook up a certain number of drops of water in question with liquefied gelatin in a test-tube. But quite recently he has adopted a modification of this method, which permits a numerical estimation of the viable sperms in water, and, as a corollary, a comparison of several waters: this he has satisfactorily applied to the river waters, sewage, effluents, and potable waters of Berlin. (See SANITARY RECORD for Feb. 15, 1883.)

A quantity of the water to be examined, varying according to the purity as gathered from an ordinary microscopic examination, from several drops down to ·01 of a drop—*i.e.* a drop of a corresponding dilution—is intimately mixed with the gelatin, and spread out as a thin film on a sterilised glass slide, covered with a bell, and examined with a lens of about thirty diameters after the lapse of thirty to sixty hours. The colonies appear as vacuoles in the gelatin; and to count them a thin glass cover, ruled in square centimètres, is laid on the slide: the number in each of several squares is taken, and from the mean of these the number first in a drop and then in a cubic centimètre is calculated. Good waters will yield fifty to one hundred colonies to the centimètre, unfiltered river waters as many thousands, while in sewage they are to be reckoned by millions. At present, he has not been able to distinguish between pathogenic and other bacilli, but he entertains serious hopes of progress in this direction.

In examining earth, he merely sprinkles over the surface of the coagulated gelatin fine particles of the soil. In the moist atmosphere of the bell, the germs adhering to the particles of earth soon develop into colonies. A curious result of these experiments, and one that has a direct bearing on the action of the earth in purifying sewage, is that, while bacteria swarm near the surface, there are but few at a depth of two feet, and practically none at three.

We may here subjoin some estimates of the number of viable germs found by Koch in a cubic centimètre of each of the waters around Berlin, valuable for the light they throw on the effect exerted on water by filtration through earth, and on the vexed question of the influence of sewage effluents on running streams.

In Berlin sewage	38,000,000
Effluent from the irrigation areas	87,000
Effluent, after mixing with the water of the Wuhle and before being discharged into the Spree	52,000
The Spree above the outfall of the Wuhle	115,000
The Spree below the outfall of the Wuhle	118,000
Rummelsburger See (a lake used for a water-supply)	32,000
Waterworks at Stralau, before filtration	125,000
,, ,, ,, after filtration	120
Good Spring waters	100
	50
Distilled water	5

[These figures are not in the paper referred to above, but are taken from the Report of the Royal Commissioners on the Berlin Sewage Works.]

E. F. WILLOUGHBY, M.B.

ARTICLE 1291.

BALDI ON THE SECRETION OF THE BILE.

BALDI (*Lo Sperimentale*, April 1883) says that the saliva, gastric juice, pancreatic, and intestinal secretions, as regards their flow have these characteristics in common. In normal conditions, they are regulated by the presence or absence, as well as by the nature, of the food in the digestive apparatus; and in abnormal or experimental conditions they can be excited, and in various ways modified, by different stimuli, mechanical, electrical, or chemical. The author's experiments were made with the object of determining whether the biliary secretion comported itself in an analogous manner to the other digestive secretions, and whether it was determined by the same conditions or whether it differed in any essential manner. Three large healthy dogs were operated on, and a permanent fistula of the gall-bladder—the common bile-duct being tied and excised—was made in each, and the dogs allowed to recover perfectly. During the experiment, the dogs were fastened up in the apparatus of Ludwig, so as to collect the bile regularly and without intermission. The quantity of bile secreted in each hour was carefully measured, and then evaporated to dryness and weighed. The author gives tables arranged to show diagrammatically the results he obtained. The first thing which strikes one on examining these tables, is the singular irregularity of the flow of the bile, which alone is sufficient to distinguish it from the other digestive secretions. The second is the constant want of relation between the quantity of water and the biliary solids; so that not only the quantity but the density oscillates greatly from hour to hour. Examining the diagrams as to the possible influence exercised by digestion and absorption of food, it is difficult to arrive at any definite conclusion. Confronting the sum total of the bile and dry residuum secreted during fasting and the hours preceding a meal, with the amount secreted in the same time after a meal, one finds that, as a rule, more bile is secreted after a meal; but this rule has many exceptions, and the increase of bile is not conspicuous, and has reference more to the amount of water than to the dry residuum. During the hours of fasting the flow is much the same as during those of digestion, the secretion is continuous, but oscillates capriciously from hour to hour in quantity and density. Neither does starvation altogether arrest the flow of bile: in the necropsy of a dog who died of inanition, Professors Luciani and Bufalini found the gall-bladder full, and much bile in the otherwise empty intestine. All experiments tend to prove that the bile as a secretion has, from the physiological point of view, more analogy to the urine than to the digestive fluids.

The author's next experiments were on the action of certain reputed cholagogues, podophyllum, rhubarb, jalap, alkaline Carlsbad water, phosphate of soda, and pilocarpine. The drug was dissolved or suspended in water, and introduced into the stomach by the œsophageal tube. These experiments were made on one dog only, and that after its nutrition had gravely suffered; this always happens

after a time with a biliary fistula, notwithstanding plenty of nourishment. The biliary secretion progressively diminishes as the animal loses weight; it becomes intermittent instead of continuous, so that in some hours little or none is secreted. Not one of the drugs tried influenced the flow of bile; there was no cholagogue action early or late; indeed, after some drugs, rhubarb, phosphate of soda, and jalap, there was at first decided diminution of the flow. These experiments are too few to settle the question as to the cholagogue action of these drugs.

Baldi's results so far tend to prove that the liver, as the secretory organ of the bile, must be considered as an emunctory for the waste materials of the different tissues destined to be expelled. This accords with the researches of Schiff, who has shown that the bile poured into the intestine is in part reabsorbed and taken back to the liver by the portal vein, to be again excreted and returned to the intestine. Some observers doubt if the biliary matters absorbed into the blood pass again in the secretion of the liver, thinking it possible that they may serve only to excite increased secretion without passing out again by the liver. Having repeated Schiff's experiment of injecting bile into the stomach and directly into the blood, the author shows that the liver, rather than the kidneys, expels the biliary matters from the blood. When ox-bile was injected into the stomach, the secretion of bile increased enormously, the bile having taken the green colour of the ox-bile. The same happened when the bile was injected into the blood direct, whilst the urine showed no trace of biliary acids by Pettenkofer's test. All the bile was expelled by the liver, and not a trace by the kidneys. Admitting that the biliary acids (the only true specific elements of bile) are the exclusive products of the hepatic cells, and this remains to be directly proved, the fact is nevertheless true that the biliary secretion is distinguished in a characteristic manner from the other digestive fluids, by the irregularity of its flow and by its independence of any decided exciting influence of food or medicine. It presents instead many points of contact with the urinary secretion; both depend essentially on the collective waste of the organism, the liver having an excretory faculty for the biliary materials, just as the kidneys have for the urinary materials.

G. D'Arcy Adams, M.D.

Article 1292.

SULZER, DEUTSCHMANN, AND CZERNY ON BLINDING OF THE RETINA BY SUNLIGHT.*

We have in Sulzer's paper an account of four cases of defect of vision due to the solar eclipse of May 1882. In all, the symptoms came on immediately, and lasted for several weeks; in two of them, indeed, the sight was still very defective at the date of the last examination, six months after the exposure. There were changes detected by the ophthalmoscope in the region of the macula in all, visible as a dark pigmentation. In the worst cases there was a greyish-yellow spot in the centre of this area. Deutschmann also gives four cases of a like nature.

Analogous cases were described first by Mackenzie, and afterwards by Jaeger, Arlt, Dufour, Haab, Czerny, and quite recently by Swanzy of Dublin.

Jaeger described fourteen cases due to direct observation of the eclipse of 1851. In eight of them no material change was found; in four, there was choroiditis with distinctly visible exudation; in two cases, disturbance of vision and ultimate blindness were caused by malignant disease (Krebs) of the choroid, which Jaeger believed to be primarily due to the observation of the eclipse.

Due to the same eclipse, Arlt described one case of obscuration of vision, in which the structural change was considered to be chronic retinitis.

Dufour brought forward a case due to the eclipse of July 1879. Four days afterwards, the whole macula was occupied by a dark brown pigmented patch, with a round yellowish-white sharply defined spot in its centre. Eight days later the brown pigmentation of the macula had visibly faded, and in ten days more this region looked perfectly normal. Several months later, the vision had not increased beyond ½. He was the first to compare the extent of the non-percipient area of the retina (measured by the size of the positive central scotoma) with the size and form of the retinal image of the unobscured part of the solar disc. He found that the affected retinal area, a few days after the exposure, was in its greatest diameter twice as large as the greatest diameter of the retinal image. He explained this, as well as the dissimilarity between the shape of the affected retinal area and that of the retinal image, by assuming that the patient had not observed the sun with perfect steadiness.

Our author, in one severe case, measured the non-percipient part of the retina four days after the eclipse, and again forty days later, and found that the greatest diameter had increased three-fold during this interval. He accordingly argues that the extension, and the difference in size and shape between the affected retinal area and the retinal image, must be due to a gradual extension of the inflammatory process originated by the exposure. In this case, he found that some months after the injury the non-percipient retinal area had again diminished, from absorption of the inflammatory exudation.

Dufour has recently endeavoured to connect the structural changes causing the scotoma with the physiological processes occurring in the illuminated retina. He believes that the loss of sight is caused by destruction of the visual purple, swelling, and possibly partial breaking down of the rod and cone layer (analogous to the increased breadth of the rods in the illuminated retina of the frog described by Hornbostel), and a slight *non-inflammatory* alteration of the pigment-epithelium.

Czerny's experiments on the lower animals tend to prove that the process is really a pathological one. He focussed solar rays directly upon the retina, so as to cause blindness, and found that he had produced an exudative inflammation in the retina and choroid. In an eye removed immediately after the exposure, he found that the processes of the pigment-epithelium had advanced between the rods and cones as far as the external limiting membrane, and that the outer segments of the rods were somewhat curved at their outer ends. In an eye excised three days later, the outer part of the rod layer had

* Sulzer.—Cases of Retinal Affection Due to Direct Observation of the Eclipse of May 1882. (*Klin. Monatsbl. für Augenh.*, April 1883.)

Deutschmann.—Blinding of the Retina by Direct Sunlight. (Von Gräfe's *Archiv*, Band xxviii., Heft iii., p. 241, 1883.)

Czerny.—On Blinding of the Retina by Sunlight. (*Sitzungber. der Wiener Acad. der Wissensch.; Math.-Naturwiss. Cl.*, Band lvi., Abth. 2.)

entirely broken down, and there were masses of pigment as far forward as the internuclear layer. At the periphery of the affected area, the pigment-epithelium appeared to be in process of rapid proliferation. In the duck he also found an inflammatory exudation between the chorio-capillaris and tapetum nigrum, with much injection of the neighbouring vessels. As a final result, there was atrophy with pigmentation of the retina at the affected spot, with complete atrophy of the choroid. By shutting off the invisible heat-rays, he found that these changes were really produced by the light-rays.

The ophthalmoscopic appearances in all the cases can be explained by these observations of Czerny. The dark pigmentation of the region of the yellow spot present in all was doubtless due to the secondary hyperplasia of the pigment-epithelium, while the greyish-yellow spot seen in the centre of this area in the graver cases was a choroido-retinal exudation. Whether the destruction of the outer parts of the rods and cones found in the lower animals existed in the severer cases above mentioned cannot be determined with certainty; but the loss of function, in the form of a positive central scotoma, persistent after absorption of the inflammatory exudation, renders such an explanation very probable. The arterial hyperæmia described by Czerny was distinctly visible ophthalmoscopically in two of the four cases. Indeed, the essential structural changes in this affection of the retina are characteristically not of the nature of physiological processes, in so far as they first appear after discontinuance of the exciting cause, and may continue to progress for a long time independently of it. R. Marcus Gunn.

Article 1293.

SCHÖNFELD ON A CASE OF THOMSEN'S DISEASE.

In the Medical Record for May of the present year we noted an account of this affection, by Dr. Westphal. The following case, the clinical history of which is fully given by Dr. Schönfeld (*Berliner Klin. Wochensch.*, July 2), may be regarded as supplementary thereto. A recruit frequently when at drill fell to the ground, sometimes face forwards, sometimes on his back. There was no loss of consciousness, nor giddiness. He would quickly recover and return to his duty, which he showed no disposition to avoid. He was sent to the garrison hospital, and closely watched as to the possibility of simulation. His age at this time was twenty-one years. Up to the age of fourteen he had suffered no serious illness; his mother was living; his father had died with rheumatism at the age of fifty-two. Several members of his family were subjects of rheumatism. When he was fourteen years old he was bitten in the leg by a dog; the wound confined him to his home for several weeks. He was greatly frightened and frequently complained of pains in his limbs; it was only with considerable effort that he could work, and was occasionally seen to fall, without loss of consciousness. On one occasion, getting into a railway car, his legs suddenly stiffened, so that he could not raise his feet from the ground, and was obliged to be lifted by his comrades into the train. He complained that his legs would suddenly, while walking, become rigid, so that he must stand still or fall. He suffered also from troublesome pruritus of his lower extremities. He had not experienced similar sensations in the upper extremities. In November of the previous year he entered the military service, and since then had become steadily worse, so that he would fall several times a day, and had begun to suffer from the stiffness in his arms also.

In April of this year he was admitted into the garrison hospital. His condition at the time is thus described. He was a middle-sized, strongly built man, without any obvious muscular hypertrophy. On the calf of the left leg were numerous scars from the size of a pea to that of a bean, left by the dog-bites already mentioned. The abdominal and thoracic organs presented nothing abnormal. Investigation of the nervous system elicited nothing abnormal. The knee-phenomena were very distinct. Mechanical and electrical stimulation of the muscles showed no deficiency of their excitability. If the patient stood for ten minutes on one spot and were then ordered to step forward, it was wholly out of his power to do so. Slowly and with evident difficulty he could raise one limb until it was bent at an angle of about 120° on the pelvis, whilst the other limb would be bent backward at the same angle. If he fell to the ground he could only by a great effort rise again in about five minutes, and was in danger of falling again. After sitting for some time, it was not easy for him to assume the erect posture—his legs would become stiff. Passive movements of the limbs induced a resistance on the part of the muscles. Similar muscular conditions were sometimes also observed in the upper extremities. His speech was slow and drawling, but if not hurried he could pronounce even difficult words; but it was absolutely impossible for him to speak words which required rapid movements of the tongue.

In this case, its etiology must clearly be sought in the shock to his nervous system recorded above; hereditary influence could not be traced.

W. B. Kesteven, M.D.

Article 1294.

SOUTHEY, BARLOW, AND MAHOMED ON SYMMETRICAL GANGRENE.

Dr. Southey has reported the following case to the Clinical Society of London.

F. N., aged 9 (admitted into the Matthew Ward, St. Bartholomew's Hospital, November 25, 1881), was much emaciated, his hair thin and falling off, his abdomen empty and retracted, skin dry; and he was in a curious, excitable, semi-delirious mental state. He presented a gangrene of the tip of his right index finger; all his extremities felt cold, and he had insomnia. His pulse was 148, very feeble. Respiration, 32. Temperature, 99°. His heart beat with feeble impulse, in the normal situation. There was no increase of normal cardiac dulness; no cardiac murmur; no physical signs of lung-disease. Neither liver nor spleen transcended its normal limits. His appetite was bad; he had had no sickness; the bowels acted once daily; the tongue was clear and moist; micturition gave no pain; the urine was scanty, not abnormal, chiefly passed with his stools. After a few days the thumb and second finger of the same (right) hand were similarly involved; they first became red and throbbed, then livid, and finally gangrened. On December 5 exactly similar spots occurred on the pinna of the right ear, and on the extremity of his nose, and on the tip of the middle finger

of his right hand. A little later subcutaneous mottlings (tachetés) appeared all over his trunk and limbs, and developed into a raised rash, like urticaria tuberosa, or erythema tuberculatum. The spots first itched, then became painful and tender, but gradually subsided, leaving only some pigmentation to mark their sites. Finally, all the fingers and the thumb of the right hand became gangrenous and slowly separated; also the thumb, index, and little finger of the left hand. He passed into a condition of most extreme prostration, with broncho-pneumonia of both lungs, and only very slowly and gradually recovered from it. In January 1882, a new and interesting clinical feature was manifested, namely, intermittent true hæmaturia, bloody urine being passed alternately with normal-coloured non-albuminous urine. On some days, distinct blood-cells were passed with the urine; on others, blood-colouring matter without blood-cells; on others, albumen with blood enough to give the blood-reaction only. Oxalate crystals were present in great abundance when the hæmaturia was abundant, and *vice versâ*. No tube-casts were ever noticed. All symptoms of urinary disorder disappeared in July 1882, when the child was discharged well, but with the loss of his fingers. He had been seen several times since.

Dr. Barlow said he had never seen so severe a case of the disease as that described by Dr. Southey, but he had seen two or three which were less severe. As Dr. Southey had observed, the most important feature they presented was not the gangrene, but the vaso-motor disturbances. In one case, within his own experience—that of a man aged 35, who had been generally regarded as rheumatic—the attacks which usually occurred in winter, were ushered in by pain in the lower extremities, which was followed by the appearance of bluish-red patches on the integuments. When first seen by Dr. Barlow, he had just suffered an attack, and there was a distinct patch on one trochanter, while one toe was the subject of local gangrene, and all his toes were blue. In two other cases observed, in female children, 3½ years old, the attacks occurred between September and April, being rare in summer, and were in the latter case associated with sudden changes in temperature. In one child, the lower limb affected was, when seen, intensely painful and black from above the ankle to the toes, and presented a most alarming appearance. It remained thus for about three hours and then passed off, the child seeming quite well again. She had several attacks of the kind in the legs and forearms. The attacks occurred on cold days in the other case also, and on several occasions were accompanied with violent stomach-ache, while, two or three hours subsequently, dark-coloured urine, containing hæmatin, oxalate crystals, and albumen, would be passed, but only once after each attack. Dr. Barlow considered that the disease presented many points in common with that known as paroxysmal hæmaturia. It was a disease of winter, and was usually preceded by a condition of sleepiness; its resemblance to ague-attacks was not well marked, for there was no sweating stage observable, the cold stage being the principal one. He had elicited from the mother of the patient presenting typical paroxysmal hæmaturia, that the child's finger-ends grew distinctly blue during the attack, and so familiar was the appearance, that no special heed was paid to it. Dr. Barlow thought that the application of cold was a more rational treatment than the employment of warmth, being led to this opinion from his knowledge of the effects produced by cold in the treatment of frost-bites. He mentioned the case of a child, which—a sufferer from paroxysmal hæmaturia, and accustomed to be washed in warm water—was submitted to the influence of cold water, with good results. The constant current applied down the back had been employed by Reynaud, with a view to diminish the irritability of the vaso-motor centres, and with success. A patient of his own had described how this treatment was the only one which had done him much good while in St. Bartholomew's Hospital, and the method was certainly worthy of extended trial. There was no confirmation forthcoming of the association of rheumatic gout with the disease in his cases. Mr. Hutchinson, however, had described a connection between end-joint arthritis and Reynaud's disease; and a patient under his (Dr. Barlow's) care might be taken to confirm this opinion.

Dr. Mahomed had seen two cases similar to that mentioned by Dr. Southey. In one, intermittent hæmatinuria had existed, and crystals of oxalates were found in the urine. He explained that this frequent association of intermittent hæmatinuria with symmetrical gangrene effectually separated such cases from those dwelt on by Mr. Cripps; and, moreover, the patients in the former cases were not necessarily endowed with a feeble circulatory apparatus. A few male patients of his own had suffered from the disease in a more or less chronic form for seven or eight years. The fingers presented a gangrenous appearance, which varied with the weather, but was not improved by treatment. The tips of two or three fingers had been quite lost. In summer time, the hand was quite useful.

ROBERT SAUNDBY, M.D.

ARTICLE 1295.

OLLIER ON RESECTION OF THE KNEE.

ONE of the most important contributions on practical surgery during the present year is an original memoir (*Revue de Chirurgie*, Nos. 4 and 5, 1883) by Professor Ollier on resection of the knee, giving the results obtained from this operation in the surgical clinique of Lyons during the year 1882. M. Ollier states that formerly he was opposed to this operation, and, on account of the high mortality—75 to 80 per cent. —which followed his first attempts, he thought it preferable in cases not amenable to treatment by rest, drainage, and incision of abscesses, to have recourse to amputation in the thigh, the mortality of which operation in such cases was about 40 per cent. At the present day, however, owing to antiseptic dressings, the proportion is completely changed. Of seven cases in which resection of the knee has been recently performed by Ollier, one only was fatal; and in this death occurred very soon after the operation, and was due to shock. The mortality of resection of the knee has thus been reduced from 80 to 14 per cent., and the motives which formerly induced the surgeon to abstain from performing this operation no longer exist. The use of Lister's dressings, with which M. Ollier associates iodoform, have completely changed the conditions of operative surgery in the clinique at Lyons. As an example of this, M. Ollier states that, during the six months just previous to the date of his paper, he had performed twenty-two major operations (resections of large joints, amputa-

tion in the thigh and leg) without having had a single bad result through infection. Resection of the knee, which now, in M. Ollier's opinion, claims a place in the first rank of conservative operations, is applicable to three principal conditions: osteo-arthritis, or suppurative fungous arthritis; comminuted fracture, or gun-shot wounds involving the joint; ankylosis in a bad position. Thus the resection may be pathological, traumatic, or orthopædic.

M. Ollier does not approve of performing resection of the knee on children in whom osteo-arthritis usually yields to the expectant treatment, and the limb after the resection is likely to become very much reduced in length. He would not, therefore, practise the operation on any subject under the age of eight years and a half. In older patients, the indication for resection of the knee exists not only when the removal of the osseous extremities is absolutely necessary for the preservation of life, but is presented also when it is desirable to remove the source of a suppuration which, though not threatening to become immediately fatal, may prove so at any time, and which condemns the patient to long confinement in bed, and causes all the bad results of a chronic discharge. Formerly, it would have been more prudent under these conditions to undertake a natural cure; but now, M. Ollier holds, it would be blamable not to resect. The operation, when performed at a proper time, will prevent the dangers of articular suppuration, and enable the patient in the course of three or four months to leave his bed and to move about.

In performing resection of the knee, it has been M. Ollier's aim to place the parts in the best conditions for favouring osseous ankylosis, or obtaining an useful new joint in cases where solid union has not been established. Division of the ligaments and ablation of the capsule, as practised in the operations of Park and Moreau, is attended with the disadvantage of destroying the close relations of the osseous surfaces, and leaves the extremities of the bones quite loose in the wound, and deprived of such supporting soft structure as might assist very much in their ulterior union. By preserving the periosteo-capsular sheath, and maintaining the lateral and posterior continuity of this sheath, the surgeon may retain the ligamento-muscular girdle which surrounds the bones, and would keep them together after the operation. M. Ollier advocates the subperiosteal method of resecting the knee, but points out that this is not done with the view of forming a new joint. A solid limb is needed to support the weight of the body, and osseous union is the best guarantee against any relapse of the local disease. An H-shaped incision is made, which, however, is smaller than that that was formed by Moreau; on each side of the joint, is made an incision for free discharge and for the insertion of drainage-tubes. The outer incision is made just in front of the tendon of the biceps, and the inner one just behind the tendon of the sartorius. In making the transverse incision, the ligamentum patellæ is cut through and the joint opened; the lateral ligaments of the knee are not divided. The superior flap is then raised together with the patella. If this bone be found diseased it is removed, its anterior covering of periosteum, together with the continuation of the tendon of the extensor muscles, being carefully preserved. The crucial ligaments having next been divided, the inferior extremity of the femur is projected through the wound and stripped of its periosteum, and the insertions of the ligaments, as far as the line to which it is thought necessary to apply the saw. The extremity of this bone having been removed in the usual way, the end of the tibia is dealt with in a like manner. All masses of thickened synovial membrane are scraped away, and the sawn surfaces of the bone brought together and fixed by two wire sutures. After the application of sutures to the edges of the skin flaps, the ends of the divided ligamentum being also brought together by suture, antiseptic dressings are applied, and the whole limb secured in a splint. This proceeding, Ollier asserts, not only seems to realise all the conditions required for total resection, but is applicable in its primary stage to exploratory arthrotomy, to articular scraping, and to superficial (intra-epiphysal), and partial resections of the knee-joint. Under these circumstances, it is important to preserve the lateral ligaments and to re-establish the continuity of the quadriceps by suturing the ligamentum patellæ. The tendino-ligamentous girdle having been left intact, the elements of resistance and motility are preserved, and the joint is subjected but to the minimum of disturbance. M. Ollier, however, would not at the present day compare these partial operations with total resection of the knee. The former are, in certain cases, rational operations, the dangers of which are much diminished by Lister's dressings and iodoform, but they are attended by the disadvantages of all operations that are too conservative—they expose the patient to the risk of relapse. The patella has always been removed by M. Ollier; and it is considered prudent not to leave this bone in resection of the knee in the adult, when it is deprived of its cartilage and more or less diseased internally. This practice is a guarantee against relapse of ostetis and of fungous disease of synovial membrane. M. Ollier would not, however, adhere strictly to this rule, and thinks that the patella might well be left in cases of traumatic arthritis, particularly in infants. When this is done, it is necessary to increase the number of drainage-tubes. In preserving the patella when sound, in cases of some other lesion of the joint than osseous or synovial tuberculosis, the surgeon might gain the same advantages which he seeks to obtain by preserving the lateral ligaments and the capsule; that is to say, around the line of reunion of the bones there is an addition to the tissues, serving to augment the solidity of the limb. If firm union fail to be established between the bones, the presence of the patella would probably favour the compatibility of articular motility with usefulness of the limb.

In dealing with enlarged granular masses of synovial membrane in resection of the knee, the surgeon's practice should vary according to the nature of the arthritis. In articular disease of traumatic or rheumatic origin, these granular masses are converted into stable cicatricial tissue after the removal of their superficial layer, but in tubercular arthritis it is necessary to remove all the diseased synovial membrane and to apply the actual cautery to the raw surface. In cases where well-marked grey granulations exist, and where large masses are observed of caseous material, or of pale and slightly vascular granulations extending under the periosteum, amputation is preferable to resection. Since the introduction of antiseptic dressings, the prospects of treating severe open injuries of the knee by resection have much improved; and, at the same time, these dressings, by preventing those bad results which resection is intended to remedy, are likely to diminish considerably the number of cases of resec-

tion, and to widen the field of non-operative conservative surgery. There will, however, always remain a certain number of cases of comminuted fracture of the epiphyses which should be treated by resection, as, for example, when the condyles are broken up into numerous fragments and a projectile or some other foreign body is present in the midst of the splinters. In a case of this kind, M. Ollier would perform the following operation, which he has not yet tried on the living subject, but which seems to possess several advantages on account of its simplicity and of its favourable anatomical conditions with regard to ulterior renewal of the joint if ankylosis should fail. This consists in a single straight median incision carried longitudinally over the patella and through the tendon of the quadriceps and the ligamentum patellæ, dividing these latter structures into two equal parts. The patella having been divided by a saw into lateral halves, the two lips of the wound are separated, the interior of the joint is exposed, and the extent and situation of the injury fully revealed. The surgeon is then able to do what is necessary, whether simply to remove splinters or foreign bodies, or to perform resection.

In two of the seven cases of resection of the knee recorded in this memoir, the operation was performed for osseous ankylosis. This condition had been the result in one of these instances of extension of inflammation from the juxta-epiphysal region; in the second, of acute traumatic arthritis. In dealing with ankylosis of the knee by operation, the surgeon has hitherto had the choice of two methods of procedure: cuneiform excision of the femur above the articulation; resection of the osseous extremities which formerly constituted the joint. The second, M. Ollier states, is that most frequently indicated, and is the only operation applicable in cases where the extremities of the bones are still diseased; where there are patches of osteo-myelitis in the condyles of the femur; and where open sinuses still exist and lead down between the bones. The operation of cuneiform excision of the femur may doubtless be often applied, but in cases where it is not necessary to interfere with the old joint, and where there is no diseased tissue to be removed, this cuneiform resection, in Ollier's opinion, should be replaced by a simple supracondyloid osteotomy, or better still by a bloodless operation, that is to say, by femoral osteoclasis. This supracondyloid fracture is with Ollier the 'method of election,' whenever such operation is applicable and especially in ankylosis of traumatic or rheumatic origin. In such cases, he would not hesitate to have recourse to osteoclasis, if the amount of flexion at the freed knee did not pass beyond a right angle. Osteotomy, it is allowed, has no great danger if performed antiseptically, but still it is not so harmless a proceeding as osteoclasis. That method should be chosen, which enables the surgeon to obtain the same orthopædic result without a wound and yet with equal precision.

This memoir concludes with the following summary. 1. Antiseptic dressings have completely changed the indications and prognosis of resection of the knee. As formerly it was accounted wise and prudent to reject this operation, or at least to limit its indications in hospital practice, so now it would be considered unreasonable to continue to amputate the thigh in cases where resection is applicable. 2. In young subjects, on account of the dangers of resection with regard to ulterior lengthening of the bone, it is still necessary to insist on a methodical expectant treatment in suppuration of the knee, and on the employment of such relatively simple means as arthrotomy, articular scraping, drainage, &c. The surgeon might have recourse in the first place to these means at any age, but he should always prefer resection to amputation, except in dealing with severe forms of tubercular arthritis, for which the latter is the proper operation. 3. The gravity of resection of the knee is not greater at the present day than that of amputation through the thigh. The cases recorded in this memoir show that in resection of the knee success is now the rule where formerly it was the exception, and that the surgeon must be guided by other motives than the gravity of the operation in deciding between amputation and resection. 4. Endeavour should always be made to obtain osseous ankylosis after resection of the knee; but it is necessary in this operation to try to ensure a strong articulation, in case, for some reason or other, ankylosis might fail. 5. The subperiosteal method allows the surgeon to attain this result. The sawn surfaces of the bones are thus left surrounded by abundant ossifiable tissue; and in cases where osseous union does not result, a complete ligamento-muscular girdle is preserved around the new joint. 6. From the scarcity of the observations that have hitherto been recorded, it is yet impossible to estimate the value of resection of the knee in military surgery. It may be presumed, however, that in future campaigns results may be obtained as good as those of modern civil surgery, if only the wounded can be treated with ordinary care. 7. In resection a transverse incision is recommended, together with two lateral vertical incisions. These incisions should not be so extensive as those that were made in Park's operation, and the lateral ligaments of the knee should be left intact. On each side of the joint, far back and near the posterior margins of the condyles, a deep vertical incision is made for the purpose of drainage. 8. In cases of chronic intra-articular suppuration, it is usually found necessary to remove the patella, its anterior covering of periosteum being preserved. The continuity of the ligamentum patellæ should be re-established by nature. 9. In the operative treatment of comminuted fracture of the articular extremities of the bones, a longitudinal incision is to be preferred to transverse incisions. A median longitudinal incision in front of the knee, dividing the patella into two lateral halves, facilitates the operation, and preserves all the constituent elements of a new joint, and at the same time favours ankylosis, if this result be intended. 10. In osseous ankylosis of the knee, supracondyloid osteoclasis should be the method of election. This operation is especially applicable in cases of ankylosis of traumatic or rheumatic origin, when flexion does not reach or exceed a right angle, and when there are not any deep-seated and multiple cicatricial bands in the popliteal spaces. 11. Whenever there is a risk of lacerating any of the popliteal vessels or nerves enclosed in cicatricial tissue, it would be better to have recourse to supracondyloid osteotomy or to resection. It would be necessary in such case always to practise total resection of the condyloid expansions of the femur, if the cicatricial adhesions be deep-seated and multiple, and if the leg be flexed beyond a right angle. 12. Resection of the condyloid expansions is the only operation to be proposed when signs of inflammation of bone are presented. In a case of flexion of the leg passing beyond a right angle, the surgeon must remove not merely a wedge-

shaped bone, but must take away some thickness of the posterior portion of the femur. This is the sole means of bringing the surfaces of section into contact, without exciting painful tension in the popliteal region and interfering with the circulation of the limb.

W. Johnson Smith.

Article 1296.

RICHARDSON ON FEEDING BY THE VEINS, AND ON INTRAPERITONEAL INJECTION IN THE COLLAPSE OF CHOLERA.

Dr. B. W. Richardson, in the *Med. Times and Gazette*, Aug. 1883, pp. 124, 155, 179, 210, recasts in a brief form a number of essays which appeared some years ago in the *Med. Times and Gazette*.

In the main, the author was led to the conclusion that every fatal sign and every danger in cholera is due to the one simple act of the removal of water from the tissues, and especially from the nervous structures. The treatment suggested during collapse, and based on these views, introduced the consideration of the plan of feeding by the veins and of intraperitoneal injection. The first point of practice in the collapse was to place the patient in a temperature between 50° and 60° F. The next point was that of feeding. The fluid should be warmed about 15° above the animal temperature, and should not only supply colloidal food, but should yield up heat to the body after it was taken. A food was prepared according to the following formula :—

Two ounces of pure stearine, 2 oz. of fresh butter, 8 oz. of whites and yolks of eggs, well beaten up ; 20 grains of carbonate of soda, 80 grains of common salt, 2 oz. of distilled water. In administering this compound, take an ounce of it, place it in a breakfast cup, and rub it up equally with a teaspoonful of glycerine or honey. Next pour upon the mass 3 ounces of *boiling water*, and incorporate well.

When feeding by the mouth is impossible, the next indication in the stage of collapse is to feed by the veins—to feed in the same way, as nearly as possible, as the venous system is fed in health from the alimentary canal through the thoracic duct.

In the calm which accompanies the approach of death, there is often a cessation of the discharges from the alimentary canal, and in rare cases the patient arrives at this stage and unexpectedly recovers ; again, if one inject a warm saline fluid into the veins of a patient during this stage, there is a temporary reanimation, followed, however, by renewal of the discharge from the alimentary canal, and subsequent collapse.

The problem, based on these two sets of facts, is to find a fluid which, being gradually and steadily infused, will keep the animal fire alive while time is given for the alimentary affection to run its course and cease—a result which is all but certain in the majority of cases when time is obtained. What shall the fluid be ? Blood is the first fluid to which the mind refers, but the objections to it are too many to permit the recommendation of its use as a practical method. Could we, however, separate the serum of the blood flowing from the vein of a healthy person, and slowly infuse the serum only, we should then be giving the collapsed man an external alimentary system, and should be putting him into a condition in which it would be difficult for him to die.

Milk was injected into the veins in six cases by Dr. James Bovell, of Toronto : two cases recovered, and the others were benefited for a short period. The author, however, considers that there are disadvantages connected with the use of milk, and suggests the use of the following :—four ounces of white of egg, one drachm of common salt, one scruple of phosphate of soda, one ounce of clarified animal fat, two ounces of pure glycerine, water to one pint.

In reference to the mode of injecting the veins, it must be remembered that no forcing must be used : the syringe is a bad and dangerous instrument.

Dr. Richardson also draws attention to a suggestion which he submitted, in Aug. 1854, to the East Surrey Medical Society, for the treatment of cholera during collapse by the production of artificial peritoneal or of cellular dropsy ; the author thinks, however, that the plan of feeding the veins is the sounder practice.

Having disposed of the treatment of cholera in the stage of collapse, Dr. Richardson concludes his papers with a short communication on the treatment of the first stage, and of the stage of reaction. The treatment of the early stage resolves itself into three parts : *a*, the hygienic ; *b*, the dietetic ; *c*, the medicinal.

Creasote in small repeated doses, in combination with opium and camphor, checks the choleraic discharge, relieves the spasm, and is the most demonstrably curative remedy the author knows.

When the stage of collapse has decidedly passed away, the safest practice is to prevent every artificial means of stimulation. The patient may be relieved of medicine, he must not be rapidly fed, and must be allowed to rest and sleep.

Richard Neale, M.D.

Article 1297.

KOCHER AND OTHERS ON THE REMOVAL OF GOITRE.

At the twelfth congress of the German Surgical Society in Berlin, on April 4, 1883 (*Deutsche Med. Wochensch.*, April 11 and 18, 1883), Professor Kocher, of Bern, spoke on the operation for the removal of goître. Since 1877, this operation has been performed 340 times, 103 times by Kocher alone. He has had to guard against two dangers in the operation, the risk of wounding the recurrent laryngeal nerve, and the difficulty of preventing or arresting hæmorrhage. He ligatures all the veins in two places, after laying bare the swelling, then turns the tumour out of the wound, and loosens it from the trachea and surrounding parts ; and only after he has ligatured the arteries does he proceed to incise the capsule and remove the tumour. He considers the customary tracheotomy before the operation to be not only unnecessary, but positively injurious, according to the statistics ; and he has found that the bending of the trachea which was supposed to necessitate it, can be prevented by a suitable position of the head of the patient. He has never observed the softening of the trachea as the result of pressure, which has been mentioned by many operators. As the consequence of the operation, he has seen great diminution of physical strength, especially in young growing patients, with

deficiency of red blood-corpuscles, and other signs of pernicious anæmia, in cases where the extirpation has been complete. Other organs remain normal, as does also the urine; and Dr. Kocher believes this condition, which he calls cachexia strumitiva, to be the result of the loss of the thyroid gland, which must, in that case, be reckoned among the blood-forming glands. He has not been able to refer the cause of goître to the drinking water.

Professor Bardeleben had not seen so many cases as Professor Kocher, as the occurrence of four during the last session was an increase which, he thought, might be due to the greater use of water brought by pipes. He agreed in giving up the preliminary tracheotomy, but he had not found any cachectic symptoms to follow the cases of total extirpation which he had had; the patients' strength seemed, on the contrary, to increase from the time of the operation. He had seen one case of great softening of the trachea.

Herr Maas of Freiburg had also operated without preliminary tracheotomy, but in one case it was necessary to resort to it afterwards, on account of the bending of the trachea, which threatened asphyxia. He had found the trachea to be usually increased in length and diminished in width, so that its lumen was easily closed in unfavourable positions of the patient. He thought the operation was sometimes undertaken too hastily, as, out of 455 patients seen in his policlinic and 67 in the clinic, only 23 required operation, the others being cured by iodine treatment. He considered the operation to be more necessary in proportion to the age of the patients.

Herr Wölfler, of Vienna, spoke of the results of 68 cases, of which five had ended fatally. Forty-eight of these were between the ages of 12 and 30, and the remaining 20 between 30 and 65. The only indication for treatment, in his opinion, ought to be disturbance of function, which will be principally dyspnœa. The operation is too dangerous to be undertaken for the sake of appearance, and the resulting sinking in of the skin is often more unsightly than the original malady. Pregnancy, up to the sixth month, is no contra-indication of the operation; after that period, dyspnœa should be treated temporarily by tracheotomy, and further treatment deferred. The most common form of tumour is adenoma, on which may follow colloid degeneration. In the former, the blood-vessels form a network in the swelling; in the latter, they run more longitudinally. Papillary cystic adenoma is more malignant, and gives indications for thorough extirpation; but the hæmorrhagic goîtres are the most dangerous, and they may give rise to most alarming bleeding. Dr. Wölfler had had no experience of the cachexia mentioned by Dr. Kocher, and he thought the general health of the patients ought to be thoroughly investigated beforehand, so that a circumstance which would have occurred in any case may not be attributed to the operation. Death resulted generally from septic infection of some kind, and in one case from entrance of air into the inferior thyroid vein.

Dr. Kocher replied that none of the speakers who contradicted the occurrence of cachexia had operated on young persons, in whom he had found it to occur. In the only case of a patient as young as 15 which had been mentioned, a relapse had occurred, showing that the extirpation had not been complete.

ALICE KER, M.D.

ARTICLE 1298.

PYLE ON THE UTERO-PLACENTAL CIRCULATION.

DR. J. P. PYLE presented as a graduating thesis, at the last annual commencement of the University of Pennsylvania, a memoir entitled 'Experimental Research on the Utero-placental Circulation.' The conclusions which the author deduces are formulated as follows.

Nineteen experiments were made with ultramarine blue. In each instance the blue, which had been introduced into the circulation, was found widely distributed in the maternal organs. The total number of fœtuses obtained from these animals was sixty-one. Of these, forty-six gave positive results, *i.e.* the fœtal tissues were impregnated with blue granules in varying quantity. Only fifteen of these fœtuses gave negative results.

Of the placentæ only fifteen were examined, thirteen of these showing blue granules, the remaining two giving negative results.

Of the thirteen umbilical cords examined, eight gave positive and five negative evidence. Dr. Pyle regrets that, owing to circumstances beyond his control, the remainder of the cords and placentæ were not examined.

It is also seen that ten experiments were made with septic poisonings with the object to study the transition of bacteria from the mother to the fœtus. The maternal tissues were in every case impregnated with bacteria. Of the thirty-nine fœtuses examined, in every one identical bacteria were discovered. Eight of the placentæ gave positive results, as well as seven of the umbilical cords examined.

The control experiments, two in number, made with the object to determine whether or not the bacteria were of an accidental occurrence, gave negative evidence. It is true that putrefactive bacteria do occur in animals after the lapse of a certain time after death, and this Dr. Pyle observed in the blood from the heart of the animal which was examined eighteen hours after death. But even here the fœtuses were free of them. Moreover, it can be seen from his experiments that the examinations were made immediately after death, or within a few hours, and that only bacteria pertaining to septicæmia (micrococci) were seen, and not the organisms of putrefaction, which are dumb-bell-shaped and rod-like. The few negative results are certainly of no significance in contrast with the many positive observations, especially in view of the difficulty in making the examinations.

The observation in the human being, which he had the exceptional opportunity to make, he regards of still greater importance than all the experiments combined. Dr. Pyle has observed that the bacteridian disease of the mother is transmitted to the fœtus. The examination of the fœtus, which was removed by Cæsarean section, was made one hour after the death of the mother. In this case, also, the bacteria in the blood and tissues of the fœtus could surely not be accidental.

Dr. Pyle thinks that Cohnheim's theory of the migration of white blood-corpuscles, which has lately been proven by himself to be a mere passive process of filtration through the blood-vessel walls, is a fair analogy to what may be found in the transmission of solid particles through the attenuated utero-placental walls.

Article 1299.

PRIBRAM ON DYSENTERY.

A case of acute dysentery, occurring in a patient who had already been for a long time under observation for some other affection, is reported (*Wien. Allgem. Med. Zeitung*, No. 29, 1883) from Prague. The cause of the acute attack could only be found in the presence of a patient suffering from chronic dysentery in a neighbouring bed. Every precaution, however, had been taken to prevent the possibility of infection from the excreta, &c. The clinical features of the case were precisely those of the most acute form of dysentery. The examination of the rectum showed great and tender swelling of the mucous membrane, without breach of surface. No similar attack had ever been experienced by the patient. In his remarks upon the case, Professor Pribram points out the resemblance of these acute forms of dysentery to those of cholera, especially in the very rapid onset of the disease and the speedy occurrence of collapse or suppression of urine. The less severe forms may in their results be almost as fatal, from the continuance of fever, depression of circulation, and tendency to suppression of urine. The truly chronic forms, which are the most frequently met with, are characterised by their marked tendency to relapse, coupled with a condition of alternate constipation and diarrhœa. Digital examination of the rectum in such cases frequently shows cicatricial constriction, and the presence of single isolated polypoid excrescences from the mucous membrane. In some cases, but they occur but seldom in Prague, periproctitis and rectal abscesses may be set up. In others, still more rarely, hepatic abscess may follow. In respect of the acute attacks, much of the success or failure of treatment depends upon the previous vigour of the patient. As a general rule, the more vigorous the patient, the better are his chances of overcoming the depressing effects of acute or subacute dysentery. In the early stages, experience has taught that judicious purgation, especially by castor-oil, has been followed by the best results. Occasionally, even the most violent attacks appear to be cut short at their very first onset by this means. With continuance of the diarrhœa, some form of opiate must be used, and Professor Pribram speaks strongly in favour of opium itself in preference to any of the preparations of morphia. Possibly the better action of opium may be due to some of the other alkaloids, which occur in natural combination with it.

A special remedy has been found in cotoin (an astringent alkaloid derived from Bolivian bark.—*Rep.*), but as yet it has not been very widely employed. Local medication by injection, especially of antiseptic fluids, would appear to be indicated by the very marked local symptoms. Of antiseptic solutions, that of carbolic acid must be avoided, owing to the rapidity with which absorption may take place in the rectum. Solutions of boracic acid or nitrate of silver are more appropriate, but, if there be still active mischief present, they often give rise to excessive pain. The maintenance of strength is one of the principal considerations in the treatment of dysentery. Wine, rum, and ether are recommended. The choice of nourishment is of the utmost importance. Skimmed milk, small quantities of broth, and cold solutions of white of egg, are applicable to the very acute stage. Digestible farinaceous foods and preparations of eggs may follow when bleeding has ceased. No meat should be given, until the natural action of the bowels has been nearly restored. E. Clifford Beale, M.B.

Article 1300.

CREIGHTON ON THE AUTONOMOUS LIFE OF THE SPECIFIC INFECTIONS.

The theory of evolution has given a new direction to research in many different fields, and has been largely fruitful in fresh discoveries. The marks of its working, too, are as plainly visible in the changes of our daily life, as are its vestiges in the earth-strata of past ages. It would be strange if the history of disease did not show signs of the same developmental process; and we believe that, as time goes on, these will be more and more evident, though even recent times, extending not much further back than the beginning of the present century, have seen modifications of intensity and distribution of disorders which point either to their increasing prevalence or their approaching extinction. Small-pox and typhus fever belong to the latter, osteitis deformans to the former class.

Dr. Creighton's address on pathology at the late meeting of the British Medical Association at Liverpool is interesting as bearing on this subject, while it is no less so from its novel and eloquent presentation of known facts. The address was more properly a philosophical than a scientific one. It did not advance proofs so much as analogies, probabilities, and suggestions. But its very suggestiveness made it valuable by inviting the mind to trace, farther than has yet been done, the life-history of diseases, and, so to speak, to find the causes of the causes now believed to produce them. Beginning with cancer, in which the principle of development from the simple to the malignant has long been at least provisionally admitted to exist, the lecturer went on to consider the markedly infective diseases, such as bovine tubercle and yellow fever. He laid down the general doctrine that in all these cases there is a primary condition of body, consisting of a mere structural and physiological alteration of the normal type localised at some point or points in it, not metastatic by infection in the body, and not communicable to a healthy individual. This is the pre-autonomous stage. It is followed, in certain cases, by a stage in which the morbid alteration becomes transferable and capable of reproducing its like by contagion. This is the stage of autonomy.

Cancer, while still an innocent adenoma, a more or less local proliferation or secretion of epithelial cells into the tubules of a gland, is pre-autonomous. So soon as the shed products tend to invade the surrounding fibrous tissue of the gland, and, travelling by the lymphatics to distant parts of the body, to impress their proper characters on them, it becomes autonomous. Normal secretion is followed by a secretion of malignant material.

In bovine tubercle, the nutritive function is taken to undergo perversion. The primary seats of disease are the parts normally occupied by internal fat, namely, the subserous tissues lining the serous cavities. The nodules of new growth exactly mimic the nodular masses of fat, which they may be said to have dispossessed, and whose place they occupy. We are told that the first step in this process of dispossession is a failure of nutrition, which leads to absorption of fat, and the formation in place of it of an

embryonic tissue, which is an attempt at reproduction of fat, but is arrested from insufficient blood-supply. So far, the disease is not autonomous, but soon the embryonic material finds its way along the lymphatics, other organs are implicated, and the autonomy is established. Small-pox, which has been traced by Hirsch, Pruner, and others to an original seat in the African continent, is by the new hypothesis regarded as primarily a skin-disease, non-contagious, and limited to the black skin. It acquires its autonomy after dirt, neglect, and exposure to the circumstances of tropical savage life have rendered it inveterate. Some change in its vital properties has occurred, which enables it to reproduce itself in another than its first host. Yellow fever has been selected by Dr. Creighton as another example of a transitional disease. With elaborate research, he has traced its advent to the American coast and the West Indies as closely connected with the African slave trade. The ships by means of which this traffic was carried on were badly adapted for it, and at the end of the voyage were rank with human filth. Not uncommonly, there had been great mortality among the negro cargo from dysentery. Following Dr. Audouard, who investigated two outbreaks of yellow fever on behalf of the French Government, Dr. Creighton ascribes the disease contracted at the ports of debarkation, where it regularly became endemic, to fœtid emanations from the filthy bilge-water, and believes that there is something peculiarly offensive about the negro body which causes or assists in causing the noxious effects of such emanations to acquire a greater virulence on the body of the white man, and to produce, not dysentery, but yellow fever. This dysentery, we presume, is the visible expression of the pre-autonomous condition of yellow fever. It is as with certain parasites—the negro is the first host of a something which acquires different and stronger characters on being transferred to the European. Such, at least, would seem to be the view of the natural history school of pathologists. The fact that the negroes themselves have always shown a singular immunity from yellow fever goes to support the same theory. It naturally occurs to us that, after all, the dysenteric disorders may have been a variety of yellow fever. But we are positively informed on the authority of Bancroft and others that this was not so. If their evidence can be relied on, we are clearly bound to admit the possibility of evolution in this disease.

It is worthy of note that the Peruvian outbreak in 1853 arose on the importation, not of negroes, but of Chinese coolies, into Lima and Callao. These men had suffered like the negroes from dysenteric sickness. They were ill-fed, weakly, neglected. Thus dysentery and filth are again accountable, but equally in the case of the yellow and the black man. Yellow fever, then, is not of negro origin only.

Purulent ophthalmia, excited by the glare of the Egyptian sun, is cited as another disease beginning as a simple inflammation, but ultimately, in chronic cases, acquiring contagious properties.

It seems somewhat strange that, throughout this lecture, disease-germs are but barely mentioned. One might have expected that, after the life-history of various micrococci and bacteria has been carefully and repeatedly described, and their function of *conveying* contagion demonstrated with mathematical precision, some allusion would have been made to their share in the processes which mark the autonomous stage of infectious diseases. The part played by these organisms is not, however, denied, for we have it stated : 'The germ or the sperm is no doubt a peculiarly important part, and it is charged with the most marvellous representative powers ; but it is always representative of the individual, and it derives its powers from the individual.' This somewhat hazy statement may be taken as expressing, though in a meagre way, the present position of bacterial pathology. We do not think it is directly intended to do so, but to our mind it indicates a method of reconciliation between the endogenous and exogenous theories of the etiology of infectious diseases. The experiments of Pasteur on anthrax, of Koch on tuberculosis, and many others of the same kind, have certainly demonstrated the power which bacteria possess of communicating disease. But, inasmuch as the organisms were taken in the first place from the bodies of diseased animals, or were contained in earth or fluids which were not free from the suspicion of having been infected from those bodies, there is still some doubt whether they were themselves the first causes of the disease, or were the vehicles of its transmission merely after having become endowed with the characters of the morbid structure which formed their pabulum. The point in this address, which we consider to be of especial value, is the suggestion, and even as such it is valuable, that there has been in certain contagious diseases an early condition which has gradually emerged from the normal, which, though morbid, was at first non-communicable, but afterwards, by concentration of morbid products or otherwise, became communicable, and was, and continues to be, communicated by inoculation of morbid juices, it may be, or, as has been shown, by bacteria, from the diseased part. B. G. MORISON, M.B.

ARTICLE 1301.

LUCAS ON SURGICAL DISEASES OF THE KIDNEY.

AT the annual meeting of the British Medical Association in August (*Brit. Med. Jour.*, September 29, p. 621), Mr. Clement Lucas opened a discussion on 'The Surgical Diseases of the Kidney, and the Operations for their Relief,' of which the following is a summary. He commenced by stating that the greatest advances in the treatment which had taken place of late years were those made in the indefinite border-land which separates medicine from surgery. It was in this barren and desolate tract that we must look for fresh discoveries. Ovariotomy and the various operations upon the intestines and stomach he put forward as instances of work recently advanced in this territory ; but he claimed, as the most remarkable incident of this decade, the sudden light which fell upon the profession in its relation to renal disease and the rapid growth and recognition of renal surgery. The credit of having awakened a new interest in renal disease, and of having, by experiment on the lower animals, made sure of his ground, was due to the late Professor Simon of Heidelberg, who in 1869 successfully performed nephrectomy for the cure of a fistula of the ureter following ovariotomy. Since then, extirpation of the kidney has been performed upwards of a hundred times. The operation of nephrotomy has been much more frequently undertaken, and the removal of a stone from the kidney, which used only to be attempted when a sinus or tumour existed, has been

several times successfully performed before the kidney had suffered any severe damage.

In casting a glance over diseases of the kidney to determine which might admit of surgical treatment, it is necessary to exclude at once all such diseases as attack equally the two organs; hence, the various degenerations, included under the name of Bright's disease and lardaceous disease, must ever remain outside the province of renal surgery. On the other hand, conditions which disturb the functions of one organ only, for the most part admit of relief by operation.

Painful moving or floating kidney, being only a mechanical disturbance, admits of relief only by mechanical means. Simple exploration and replacement through an incision in the loin would probably be found sufficient in the majority of cases for the cure of this condition, the adhesion resulting serving to retain the organ in position. Stitching of the capsule to the parietes, or, as it is termed, nephroraphy, is a somewhat serious, but still simple, undertaking. In eight cases in which it has been performed, the patients all recovered and were relieved. There may still be cases where intense suffering was experienced, and where the other means had failed, which would suggest nephrectomy. Martin of Berlin in six cases removed floating kidneys through the peritoneum, and four of these recovered.

Hydronephrosis, a dilatation of the pelvis and calices of the kidney with watery fluid as a result of obstruction below, admits surgical treatment when one-sided. After detailing the various conditions of the ureter, congenital and acquired, which may give rise to this condition, the author suggests these cases should be first aspirated, then cut down upon and drained through the loin, the cyst-wall being stitched to the parietes. Finally, should the fistula fail to close, the remains of the kidney may be returned through the loin. In women, these tumours have often been mistaken for ovarian tumours, and have been operated upon as such. As they are movable and do not form adhesions till late, some may advocate ventral nephrectomy in these cases before drainage, but such treatment would entail more risk than the method advocated. Abdominal nephrectomy for hydronephrosis will, however, show better results than nephrectomy generally.

Large isolated cysts of the kidney having no communication with the pelvis are rare. They should be aspirated and afterwards drained through the loin.

Hydatids of the kidney, also rare, have a tendency to discharge themselves through the pelvis. When forming tumours, they may be generally cured by aspiration or siphon-tapping.

Pyonephrosis, which resembles hydronephrosis anatomically, but contains pus instead of urine or watery fluid, when unilateral, falls under renal surgery. The double pyelitis, with suppuration and distension, which commonly results from stricture and enlarged prostate, is, the author said, inappropriately named 'surgical kidney.' He suggested the term *reflux pyelitis* as better expressing this condition. Reflux pyelitis, when one-sided, is due to some obstruction in the ureter, and then often gives rise to a large pyonephrosis. Other causes of unilateral pyonephrosis are calculus and strumous pyelitis. After speaking of the diagnosis, and stating that these tumours are more adherent, and give rise to more pain and constitutional disturbance than hydronephrosis, he said that nephrectomy for pyonephrosis had been performed twenty-eight times, and of these seventeen recovered and eleven died; but it is most worthy of notice that among these twenty-eight cases six had previously discharged their contents through a fistula in the loin, and all these recovered. Hence, he argued, it is better to drain a pyonephrosis before performing nephrectomy.

Neoplasms of the kidney can only be treated by nephrectomy; and if this be performed early, there may be a good chance of permanent benefit. Generally they are too large to be removed except through the peritoneum; but of five cases removed through the loin, four recovered. Out of sixteen removed by ventral incision, ten died, and six recovered.

Calculus of the kidney offers an excellent field for surgical interference, but the difficulty is to make sure of the diagnosis. Many cases of supposed calculus would turn out to be strumous kidneys. Two cases were related in which the kidney was explored, and even deeply punctured, but no ill-result or rise of temperature followed, and the wounds healed primarily. Several cases of nephro-lithotomy are recorded in the Clinical Society's *Transactions* and two cases have been performed successfully at Guy's Hospital during the present year. When the kidney is much dilated and damaged, it is a question whether it would not be better to remove it.

After briefly alluding to *Injuries to the kidney*, which, though not included under the title of the paper, might suggest nephrectomy, the author proceeded to speak of some details in operating. He recommended for the lumbar operation a combination of two incisions which he had employed as giving the most room, viz., an oblique incision higher than the colotomy incision within about half an inch of the last rib and parallel with it, and a vertical incision on the outer margin of the quadratus lumborum, extending from the upper edge of the last rib to the iliac crest. For the transperitoneal operation, Langenbuch's incision external to the rectus muscle is to be preferred to the median incision, as it enables the operator better to reach the kidney through the outer layer of meso-colon.

In conclusion, he urged, that antiseptic exploration of the kidney through the loin is a simple and not at all a dangerous operation, which may be undertaken without anxiety in any case where calculus is suspected; that it is generally wiser to tap and drain fluid tumours of the kidney before proceeding to remove the diseased organ; that, when nephrectomy is decided upon, the extraperitoneal operation through the loin should always be chosen for any tumour which it is possible to withdraw through the limited space at disposal; finally, if this course be adopted, the transperitoneal operation will be reserved for large solid tumours, and, perhaps, some floating kidneys. ALBAN DORAN.

ARTICLE 1302.

SHOEMAKER ON THE REPAIR OF FRACTURED BONE.

DR. G. E. SHOEMAKER, in a thesis presented for graduation at the University of Pennsylvania, describes the experimental researches which he made in order to determine to what extent the structure of the callus is identical with that of normal bone.

Dr. Shoemaker starts from the following premises. 'The repair of most animal tissues after a

break in their continuity takes place by means of a material unlike the wounded tissue.' 'If then the callus become true bone, it is an exception to the general rule.' He further observes that in the union of nerves a process, which results in a rebuilding of true nerve-tissue, is said to take place; but the process is unequal to the repair of any considerable loss of nerve-substance, and the breach is permanently filled by cicatricial substance.

Dr. Shoemaker examined the structure of the callus in several fractures in man, and arrived at the conclusion that the only difference between the structure of the callus and that of 'true bone' is that in the former the lacunæ are more abundant. So far we agree with Dr. Shoemaker; we must, however, remind him that in fractures of long standing this difference disappears, but another point of difference is present and remains permanent. MM. Rigal and Vignal,* in their work on callus, demonstrate these facts with great clearness.

The old authors, among whom we will only quote Duhamel and Troja, observed, without being able to furnish the explanation, that if an old bone containing a callus, even of long standing, be left to macerate for a long time, the callus becomes separated from the bone. Thus there are three fragments, the callus, and the two pieces of bone, which were united by means of the callus. MM. Rigal and Vignal have demonstrated that this separation is due to the absence of the fibres of Sharpey, which are present only in bone-tissue which proceeds from periosteum, and never in bone which is developed from cartilage or from medullary cells. These authors have observed that in simple fractures the callus proceeds from cartilage which owes its formation to subperiosteal cells; in compound fractures followed by suppuration, the callus is developed from medullary cells.

The experimental researches of Dr. Shoemaker on the formation of the callus lead him to conclude that it is derived from the blood, connective tissue, medulla, and periosteum, from which cartilage is first evolved and finally transformed into osseous tissue, the process resembling that of the formation of bone.

We here venture to ask Dr. Shoemaker why he did not take the precaution to read the literature on the subject of his study; he would then probably have hesitated to make researches which carry him over ground which has been well trodden by men of world-wide reputation. His thesis which chronicles his research does not contain any new fact. In it he repeats what Ranvier (1866) and Ollier (1877) published in their works on callus. Had his knowledge been extended by consulting authors who have written on the subject, he might, perhaps, have perceived that it was more advisable to repeat and control the experiments of MM. Rigal and Vignal, and thus throw more light on questions they have left obscure, as these authors have done for MM. Ranvier's and Ollier's researches.

Dr. Shoemaker passes by in silence the difference between the formation of the callus in simple and in compound fractures.

If the shortcomings in this thesis be forgotten, Dr. Shoemaker may be heartily complimented on having chosen a subject which involved giving a great deal of time, and on not sparing trouble to demonstrate important phenomena in pathological anatomy.

* Rigal et Vignal: Recherches Exp. sur la Formation du Cal. (*Archives de Physiologie*, Paris, 1881.)

ARTICLE 1303.

POTT ON THE INFLUENCE OF CERTAIN ANTISEPTICS ON VACCINE LYMPH.

DR. RICHARD POTT, who is demonstrator of children's diseases at Halle, gives a valuable contribution to our knowledge of this subject (*Archiv für Kinderheilkunde*, Band iv., Heft 11). The antiseptics used were carbolic acid, salicylic acid, borax, and thymol; and the solutions were in all cases mixed with the lymph in equal proportions, and either employed directly or sealed in tubes, and reserved for subsequent experiment. The vaccination was always primary and the lymph always humanised. In nearly all cases, each arm was vaccinated in five places. Fresh carbolised lymph (*i.e.* that under four weeks old) gave the following results. Mixed with a 1 per cent. solution of carbolic acid, it was successful seven times out of eight; with 2 per cent. solution, only once tried, and successfully; 3 per cent. tried sixteen times, successfully in all; with 4 per cent., successful eleven times out of nineteen; 5 per cent., tried six times, and always failed. The admixture of the last solution produced a cloudiness in the lymph, owing, perhaps, to coagulation of the albumen. By longer contact with the antiseptic, the lymph appeared to lose its power. Experiments with carbolised lymph, from six to twelve months old, gave the following results. A 1 per cent. solution was successful only five times out of eleven. Two per cent., 3 per cent., and 4 per cent. solutions were tried respectively four times, twice, and once without a single successful result. The course of the vaccinia which was produced by fresh carbolised lymph was carefully watched, and was found to differ in no respect from that of ordinary vaccinia.

Salicylic acid was used in one-third per cent. solution; and, when fresh, the lymph was successful in fifteen out of seventeen cases; but when from six to twelve months old it was useless. Borax in 3½ per cent. solution was employed fresh in thirteen cases, all of which were successful; and the stale mixture was effectual in seven out of eleven cases. The author considers therefore that a solution of borax is the best means of diluting lymph when the quantity is limited. One child, however, vaccinated with this admixture, developed on the ninth day a roseola extending all over the body and limbs, and accompanied by slight fever. At the end of three days, it had disappeared.

Thymol (strength not given) was mixed with lymph and used fresh in thirty-eight cases, of which all but two were successful. The author followed up the cases, and from daily observations convinced himself that the vaccinia thus produced followed its typical course. For further researches with this antiseptic, he refers to the experiments of Stern.

In conclusion, the author says that aseptic lymph of proper strength and freshness has the advantage of being more fluid and of going twice as far as ordinary lymph. The attempt to find a preservative medium has failed.

RALPH W. LEFTWICH, M.D.

FECUNDITY.—The *Boston Medical and Surgical Journal* of Aug. 23 states that the wife of a labouring man, named Johnson, in New Jersey, has given birth within eight years to three sets of triplets. All the nine children are alive and healthy.

SURGERY.

RECENT PAPERS.

1304. Coupland.—Intestinal Obstruction caused by Two Bands: One only being Discovered and Divided. (*Med. Times and Gazette*, May, p. 556.)

1305. Little.—Treatment of Nævus Maternus. (*Med. Times and Gazette*, June, p. 651.)

1306. Butlin.—The Diagnosis between Malignant Tumour and Certain Tuberculous Affections of the Testis. (*Med. Times and Gazette*, June, p. 608.)

1307. Savory.—Two uncommon Cases of Abscess of Bone. (*Lancet*, May, p. 812.)

1308. Lloyd.—A Method of Controlling Hæmorrhage in Amputation at, or Excision of, the Hip-Joint. (*Lancet*, May, p. 897.)

1309. Mapother.—Hæmorrhagic Ulcer of Head. (*Lancet*, May, p. 932.)

1310. Walsham.—Removal of a deep Sebaceous Cyst of the Neck through the Mouth. (*Lancet*, May, p. 767.)

1311. Herschell.—The Urethrascope. (*Lancet*, June, p. 943.)

1312. Holmes.—Suture of the Musculo-Spiral Nerve Five Months after its Complete Division. (*Lancet*, June, p. 1034).

1313. Clay.—The Ligature-Tightener. (*Lancet*, June, p. 997.)

1314. Savory.—The Value of Physiology in the Practice of Surgery. (*Lancet*, June, p. 991.)

1315. Lucas.—A Form of late Rickets Associated with Albuminuria. (*Lancet*, June, p. 993.)

1316. Watson.—The Propriety of the Inversion of Patients in Chloroform-Syncope. (*Lancet*, March, p. 401.)

1317. Curtis.—Foreign Body in the Urethra. (*Brit. Med. Jour.*, May, p. 956.)

1318. Smith.—Successful Case of Gastrostomy for Intestinal Obstruction. (*Brit. Med. Jour.*, May, p. 999.)

1319. Ward.—Cases of Fracture of the Patella Treated by Suture. (*Brit. Med. Jour.*, June, p. 1118.)

1320. Hamilton.—Rupture of the Bladder. (*Brit. Med. Jour.*, June, p. 1166.)

1321. Holmes.—Primary or Immediate Ligature of the Femoral Artery in Popliteal Aneurism. (*Brit. Med. Jour.*, June, p. 1106.)

1322. Carver.—Acute Necrosis of the Orbit. (*Brit. Med. Jour.*, June, p. 1182.)

1323. Marsh.—Operations on Phthisical Patients. (*Brit. Med. Jour.*, June, p. 1121.)

1324. Myrtle.—Some Common Affections of the Anus Often Neglected. (*Brit. Med. Jour.*, June, p. 1061.)

1325. Taylor.—The Treatment of Spermatorrhœa. (*Brit. Med. Jour.*, March, p. 562.)

1326. Wagner.—The Treatment of Fracture of the Larynx. (*Centralbl. für Chir.*, No. 23.)

1327. Kümmell.—Deligation of the Common Iliac Artery. (*Centralbl. für Chir.*, No. 23.)

1328. Nepveu.—Resection of the Wrist for Disease. (*Revue de Chirurg.*, May.)

1329. Prince.—The Bead Suture. (*Annals of Anat. and Surg.*, March 1883.)

1330. Fenwick, G. E.—Excision of the Knee-Joint.

1331. Stokes.—Nerve-Stretching in Tabes Dorsalis. *Dublin Jour. of Med. Science*, June 1883.)

1332. Robson.—Separation of the Lower Epiphysis of the Femur. (*Liverpool Med. Chirurg. Jour.*, July 1883.)

1333. Lidell.—Contusion of the Spinal Cord. *American Jour. of Med. Sciences*, July 1883.)

1334. Pinner.—A Case of Fat-Embolism. (*Berlin. Klin. Wochensch.*, No. 13, 1883.)

1335. Lange.—Extirpation of the Rectum for Cancer. (*Annals of Anat. and Surg.*, July 1883.)

1336. Garcia.—The Reduction of Paraphimosis. (*Gaceta de los Hospitales.*)

1337. Ficher.—Partial Resection of the Bladder. (*Giornale Siciliano.*)

1338. Minich.—Iodoform in Surgical Dressings. (*Atti della Reale Instit. Venete*, vol. i.)

1339. Sutton, R. S.—Ovariotomy with Enterotomy. (*American Med. News.*)

1340. Judson.—Traction in Hip-joint Disease. (*New York Med. Record*, May 12.)

1341. Sarra.—Coffee in Strangulated Hernia. (*Lyon Méd.*, May 20.)

Art. 1304. *Coupland on a Case of Intestinal Obstruction caused by Two Bands, one only being Discovered and Divided.*—Dr. Sidney Coupland, in the *Med. Times and Gaz.*, May 1883, p. 556, notes an interesting case of intestinal obstruction in a man aged 65. On March 12, 1882, the patient was suddenly seized with a violent pain in the abdomen, the bowels became obstinately confined, and vomiting set in, becoming stercoraceous in about three days. Cough was frequently excited by the act of vomiting. On the seventh day after the onset he was admitted into Middlesex Hospital, and it was decided that no time should be lost in performing an operation. From the history of the case, it was surmised that the obstruction was probably in the small intestine, and Mr. Lawson performed the following operation. An incision was made in the abdomen in the middle line for three or four inches downwards from the umbilicus. The peritoneum was unusually thick. The gut was carefully examined, and a point was reached where a firm constricting band passed over the bowel to the mesentery. The band was divided, and, no other being detected, the wound was closed and dressed antiseptically. After the operation there was no passage of flatus or fæces, no sickness nor nausea, but the patient died in about thirty-two hours. On *post mortem* examination, a second band was found constricting the bowel and mesentery; it formed a long loop, and proved to be the prolonged right lower extremity of the great omentum, which had become adherent to the parietal peritoneum on the left side. Dr. Coupland remarks that the symptoms coming on so acutely, pointed to volvulus or internal strangulation, and the previous history of the case did not show any signs of a long-standing condition which must have been a source of peril for the greater part of the patient's life; but he adds that it is an important lesson to remember that acute symptoms do not exclude the presence of a long-standing lesion. Another point of interest was found at the *post mortem* examination; it was noted that vomiting always excited cough, and in the lower portions of the left lung foci of broncho-pneumonia were found, due, no doubt, to the inhalation of vomited matters.

1305. *Little on Treatment of Nævus Maternus.*—Dr. Little, in the *Med. Times and Gazette*, June 1883, p. 651, describes a method of treating nævi. He says that he has never failed to cure the cutaneous variety by the introduction of heated needles into the base of the tumour. The instrument used is a shoemaker's awl, slightly curved at the point and flattened. The awl, when red-hot, is thrust into the base of the tumour and towards the centre. This procedure is repeated until the entire circuit of the base of the tumour is completed. The awl is plunged in at the juncture of the skin with the tumour, and in this way the vessels are destroyed at the base. The circuit being completed, a few punctures are made into the most prominent part of the growth. No special dressing is required; cold water compresses are sufficient. [The value of this mode of

treatment is well represented by Sect. 737 : 1, *Medical Digest.—Rep.*]

1306. *Butlin on the Diagnosis between Malignant Tumour and certain Tuberculous Affections of the Testis.*—Mr. Butlin, in the *Med. Times and Gaz.*, June 1883, p. 608, records two cases where tuberculosis of the testicles was mistaken for cancer. In both cases there was a rapid enlargement of the body of the testis, perfectly smooth, oval, and firm, without any sign of inflammation ; characters which pointed to the presence of a malignant tumour rather than to a tuberculous testicle. Mr. Butlin, however, points out that the absence of elasticity is a great point in favour of the tumour being non-malignant. Another feature worthy of notice is, that in both cases the tumour was punctured, and yielded bright blood, which very quickly ceased to flow, and the hæmorrhage was not subsequently renewed. In conclusion, the author remarks that the diagnosis in a difficult case will often rest chiefly on the importance attached to one or two symptoms, among which sufficient weight has not been given to the unequal consistence, and especially to the elasticity of the tumour.

1307. *Savory on Two Uncommon Cases of Fistulous Abscess of Bone.*—Mr. Savory, in the *Lancet*, May 1883, p. 812, reports two unusual cases of abscess of bone. The first occurred in a man aged 30, who had been struck by a cricket-ball when 14 years old ; after this the bone began to swell, but for some years he had little pain, until seven years after the accident, when all the symptoms became aggravated, and it was decided to trephine the tibia. An abscess three inches in length was exposed. The wound gradually healed, and for five years the patient had no trouble ; but, when about 26 years old, he noticed that pus escaped from the old wound and the old pains returned. He would have periods free from suffering ; then for some days he was troubled with severe pain in the part, until a small abscess formed in the old scar ; this would suddenly discharge, and the pain would cease. After some weeks the pain returned, leading up to an abscess as before. Mr. Savory being consulted, decided to reflect the old scar, and on doing this noticed a small indentation in the centre of the prominent part of the tibia, through which a minute aperture was discovered, which led down to a cavity in the bone ; this cavity was opened up and two drachms of pus removed, thus explaining the peculiar symptoms to which the patient had been subjected for so many years. The second case was that of a delicate girl, aged 18, who had been in good health until seven years previously, when she struck her right shin ; this was followed by inflammation of the knee-joint and mischief in the upper part of the tibia. Abscesses followed, and several pieces of dead bone were removed from the shaft. The wound healed and remained sound until a fortnight before admission, when pains recurred in the site of the old injury, increasing until pus was discharged. The same condition as existed in the previous case was found on dissecting back the old scar ; a small orifice in the bone was detected, which led down to a cavity filled with pus. In these cases the great agony experienced by most cases of abscess in bone was absent ; and the reason is clear enough, the tension being removed by the pus discharging through the small opening in the bone ; but the presence of these minute fistulous openings in the bone-substance is rarely met with.

1308. *Lloyd on a Method of Controlling Hæmorrhage in Amputation at, or Excision of, the Hip-Joint.*—Mr. Jordan Lloyd, in the *Lancet* of May 1883, p. 897, describes a new method of compressing the vessels supplying the thigh, so as to render operations in the region of the hip-joint practically bloodless. The principle is as follows. The limb about to be operated upon is first elevated and emptied of blood. A strip of black India-rubber bandage, about two yards long, is to be doubled and passed between the thighs, its centre lying between the tuber ischii of the side to be operated upon and the anus. A common calico thigh-roller must next be laid lengthways over the external iliac artery. The ends of the rubber are now to be firmly and steadily drawn upwards and outwards, one in front and one behind, to a point above the centre of the iliac crest of the same side. They must be pulled tight enough to check pulsation in the femoral artery. The front part of the band passing across the compress, occludes the external iliac ; the back half of the band compresses the vessels coming out of the great sacro-sciatic notch. The ends of the bandage thus tightened must be held by the hand of an assistant placed just above the centre of the iliac crest. In this way an elastic tourniquet is made to encircle one of the innominate bones, checking the whole blood-supply to the lower limb, and it is altogether out of the surgeon's way in any operation at or about the hip-joint.

1309. *Mapother on Hæmorrhagic Ulcer of the Head.*—Dr. E. D. Mapother, at a meeting of the Academy of Medicine in Ireland (*Lancet* of May 1883, p. 932), exhibited a girl who was the subject of a hæmorrhagic ulcer of the head. She was 16 years old, and had scarcely menstruated at all ; but a wound of the head, which she had received about thirteen years since, healed and remained so until about three months previously, when an oozing of blood took place at the site of the wound, and there seemed little doubt as to the connection of the ulcer with the almost total suppression of the catamenial period. [A series of cases, illustrating the various sites from which vicarious menstruation has taken place, are noted in Sect. 1143 of the *Medical Digest*, and since the issue of the last edition of that work, several other cases have been reported in the *Lancet*, Vol. i., 1882, p. 786 ; Vol. ii., 1882, pp. 879, 1013 ; and in the *Medical Press*, Vol. i., 1882, p. 115.—*Rep.*]

1310. *Walsham on Removal of a Deep Sebaceous Cyst of the Neck through the Mouth.*—Mr. Walsham, in the *Lancet*, May 1883, p. 767, notes a case of a cyst in a woman, aged 34, on the right side of the neck, extending downwards for about two inches, and upwards into the mouth. An incision was made in the floor of the mouth, the capsule of the cyst was opened, and the contents shelled out from amongst the muscles of the tongue and hyoid bone. There was no hæmorrhage, and the wound healed rapidly without any trouble, gentle pressure being maintained on the neck for a few days, and the mouth constantly syringed with weak carbolic solution.

1311. *Herschell on the Urethragraph.*—Dr. George Herschell, in the *Lancet*, June 1883, p. 943, describes a new instrument which he calls the 'urethragraph,' and by which it is possible to obtain, in the simple act of withdrawing it from the urethra, a graphic representation of the whole length of the canal, in the form of two lines more or less parallel, traced upon a strip of smoked paper. A woodcut is given of the instrument, with a detailed description as to

how it is to be used. Messrs. Weiss and Son are the makers.

1312. *Holmes on Suture of the Musculo-spiral Nerve Five Months after its Complete Division.*—Mr. T. Holmes, in the *Lancet*, June 1883, p. 1034, reports a case of a man who was admitted into St. George's Hospital suffering from paralysis of the right wrist, the result of a wound received five months previously. He could not extend the wrist or fingers at all, and supination was impossible in the extended position of the forearm. There was decided loss of temperature over the outer aspect of the forearm, and sensibility had diminished in the same situation as well as over the back of the wrist and hand. The limb was much wasted, but the electrical reaction of the muscles was not tested. On March 10, 1881, the old scar was opened up, and after some dissection the two ends of the nerve were found; on extending the limb, it was found possible to draw the ends together; the ends were trimmed up, and a catgut suture was put through the sheath on one side and a silk suture on the other. The operation was performed antiseptically. The wound united by first intention. On March 14 it was noted, 'There is a tingling sensation in the arm, localised to no particular area.' On March 15: 'There certainly seems some power of extension returning.' The patient left the hospital at his own wish in a few days, and nothing was seen of him for two years, when he returned to show how completely he had recovered. There was no perceptible difference between the two arms. Sensation was perfect, and all the movements of extension of wrist and fingers were performed as well on one side as on the other. The patient said it was about a year before he noticed any improvement; then he began to mend rapidly. Mr. Holmes supplements this paper with remarks on Mr. Wheelhouse's well-known case of suture of the great sciatic nerve; reference is also made to a case under Mr. Birkett, where the muscles regained power some two years after the division of the musculo-spiral nerve; the reason given being that the whole trunk of the nerve was not divided in this case. [An interesting series of cases of suture of various nerves may be consulted by reference to Sect. 1249 : 2, *Medical Digest.*]

1313. *Clay on the Ligature-Tightener.*—Mr. Clay, in the *Lancet*, June 1883, p. 997, describes an instrument for the purpose of tightening and securing a ligature applied to a structure so situated that the fingers cannot be efficiently applied to tighten it. A wood-cut is given, showing that it is worked as an ordinary wire-rope *écraseur*, the ends of the ligature being fastened to the stem of the instrument. Messrs. Mappin & Co., of Birmingham, are the makers of the instrument.

1314. *Savory on the Value of Physiology in the Practice of Surgery.*—Mr. Savory, in the *Lancet*, June 1883, p. 991, records an instance of the value of physiology in its direct application to the practice of surgery. A man was admitted with aneurism of the second and third portions of the right subclavian artery. In deliberating as to whether it was advisable to ligature the common carotid or the axillary artery, or both, it was demonstrated that the effect of pressure on the carotid was the sudden and striking reduction in the force and frequency of pulsation in the aneurism, due directly to the effect upon the action of the heart of irritating the pneumogastric—the inhibitory nerve. Waller, more than twenty years ago, called attention to this effect of mechanical irritation by simple pressure on the trunk of the nerve; and Czermak, it is well known, by pressing his vagus against a small osseous tumour in his neck, was able to stop the beating of his heart. Tracings were taken of the pulse, and pressure on the pneumogastric produced a marked slowing of the pulse, but there was little or no diminution in the force of the beat.—[*Vide Medical Digest*, Sects. 730 : 1; 762 : 2; 1444 : 6.]

1315. *Lucas on a Form of Late Rickets associated with Albuminuria.*—Mr. Clement Lucas, in the *Lancet*, June 1883, p. 993, draws attention to the form of rickets which he has lately noticed, occurring about the age of puberty, the true cause of which has not hitherto been described or discovered. This form of rickets, Mr. Lucas suggests, should be called the 'rickets of adolescents,' so as to associate its etiology with the albuminuria of adolescents pointed out by Dr. Moxon (*Medical Digest*, Sect. 1008 : 2). The enlargement of the epiphyses is not so great as in early life, but the disease more commonly shows itself in a yielding of the ligaments, rather than in a bending of the bones. It is a point not generally recognised, that curvature of the spine, coming on in adults, is nearly always associated with albuminuria. This statement does not refer to females, as Mr. Lucas has not examined the urine in female patients, but he has long thought that the rachitic state of health, which may be observed about the age of puberty, is imperfectly accounted for by the temporary indispositions consequent upon the menstrual molimina. Notes of four cases of rickets of adolescents are given, the urine in all of them containing albumen until they were put under treatment of iron and cod-liver oil.

1316. *Watson on the Propriety of the Inversion of Patients in Chloroform-Syncope.*—Dr. Watson, in the *Lancet*, March 1883, p. 401, says that 'syncope is the chief source of danger to the patient and of anxiety to the surgeon during the administration of chloroform.' This may take place before suspension of the respiration or simultaneously with it. All old text-books advise inversion of the patient in cases of chloroform-syncope, but Dr. Watson endeavours by his paper to banish this old idea, and to show that it is best to allow the patient to lie perfectly horizontal, by this means favouring the flow of arterial blood to the lungs and brain instead of gorging the vessels of the brain with venous blood, as is done when the patient is inverted. A slight error is made by Dr. Watson, which he has corrected in a subsequent number of the *Lancet*. Dr. Watson does not intend the patient to be placed in the prone position, but in the horizontal and supine position. [The large number of careful observations upon the value of placing the head downwards in cases of chloroform-asphyxia demand that Dr. Watson's practice should be carefully examined before acceptance. Dr. Moxon (*Lancet*, March 1881, p. 528), in his most interesting remarks upon the action of the choroid plexus, also raised his protest against the head-downward position in such cases, as being contrary to theory. *Vide Medical Digest*, Sect. 440 : 1.—*Rep.*]

1317. *Curtis on Foreign Body in the Urethra.*—Mr. W. Curtis, in the *Brit. Med. Jour.*, May 1883, p. 956, records a case of a man, aged 42, who had thrust a large shawl-pin down his urethra. On admission to the hospital, a foreign body could be felt lying along the under side of the penis, from its lower half towards the perinæum, and about the middle of

the penis a sharp point was discovered. A small incision was made through the skin, and the point was seized by a pair of forceps and drawn out. The head was found intact in the urethra; the point of the pin was therefore depressed, and the head pushed up through the urethra and drawn out through its orifice. A catheter was then passed, and left in the bladder twenty-four hours. Blood was passed in the urine several times afterwards. No urine escaped from the wound, and the patient was cured in a week.

1318. *Smith on a Successful Case of Gastrostomy for Intestinal Obstruction.*—Mr. Alder Smith, in the *Brit. Med. Jour.*, May 1883, p. 999, publishes a successful case of gastrostomy performed by Mr. Savory on a woman, aged 53, who was suddenly seized with intestinal obstruction on the evening of January 2. She vomited freely at the onset, but after one or two hypodermic injections of morphia the sickness ceased; she seemed comparatively easy till the afternoon of January 6, when the vomiting came on again, the abdomen became much distended, and the patient rapidly grew worse; it was then decided to operate. Mr. Savory opened the abdomen, and found a portion of the ileum tightly nipped by some band or constriction. On pulling this portion of the ileum and breaking through a band, a loop of strangulated intestine came out. As soon as the constricted portion was found to be pervious to flatus, the intestines were at once returned and the wound dressed. The patient was kept under opium for some few days, and made a good recovery. The case illustrates the value of operating early.

1319. *Wardon Cases of Fracture of Patella Treated by Suture.*—Mr. E. Ward, in the *Brit. Med. Jour.*, June 1883, p. 1118, reports five cases of fractured patella treated at the Leeds General Infirmary by suture. The wound was dressed according to the Listerian method in each case, the results being most satisfactory. The general plan adopted was to make a vertical incision (except in cases where there was a wound of the skin; then this was enlarged); the joint was freely opened and well washed out, the broken fragments drilled, and strong silver sutures were passed through the holes. If traction on these sutures were not sufficient to bring the two halves together, then Malgaigne's hooks were used. In one case, where great tension was required to bring the broken fragments together, there was a rise of temperature in the evening of the day of operation; and another case, where dirt and grit had entered the joint, suffered for about ten days from a rise of temperature ranging from 101 to 102. The other cases had little or no fever throughout.

1320. *Hamilton on Rupture of the Bladder.*—Dr. J. B. Hamilton, in the *Brit. Med. Jour.*, June 1883, p. 1166, records a case of a man who had been drinking about a gallon of porter, and two or three hours afterwards fell from a window on to the pavement, a height of 20 feet. He was picked up and taken to the hospital. Twelve hours later he complained of pain in the abdomen, and was unable to pass urine. A catheter was passed, drawing off eight ounces of urine, mixed with rather bright blood; in the evening, ten ounces of urine were again drawn off. Next day there was much tympanites, the urine being drawn off. The third day the urine was clearer, but the catheter was used night and morning; the patient's condition seemed to improve until the evening of the fifth day, when the pulse became very weak; he suddenly grew faint, and died five days and four hours after the fall. A *post mortem* examination showed a rent in the anterior and upper portion of the bladder; the abdomen contained sixty ounces of dark-coloured fluid, evidently escaped urine. The peritoneum was perfectly normal; all the other organs were healthy. The peculiarities of the case seem to be—1, the length of time (over five days) the man lived after the injury; 2, the total absence of peritonitis; 3, the presence of sixty ounces of urine in the abdomen, though eight or ten ounces were drawn off morning and evening. [This case well illustrates several of the interesting points brought forward by Dr. Marion Sims in his admirable paper published in the *Brit. Med. Jour.*, February 1882, pp. 223, 261.—*Rep.*]

1321. *Holmes on Primary or Immediate Ligature of the Femoral Artery in Popliteal Aneurism.*—Mr. T. Holmes, in the *Brit. Med. Jour.*, June 1883, p. 1106, records three cases of popliteal aneurism which have been lately treated at St. George's Hospital by the Hunterian operation, without any previous trial of compression. As the old practice of dividing the artery between two ligatures is being reintroduced by Mr. Walsham and other surgeons at St. Bartholomew's Hospital, the author thought it would be interesting to have the subject of ligature of the femoral artery brought forward. Mr. Holmes is confidently of the opinion that the safest plan of treatment for all large, all rapidly growing, and all thin-walled popliteal aneurisms is to tie the femoral artery at once—*i.e.* after a few days' confinement to bed. The author remarks on the practice adopted by Mr. Walsham, that the advantages in favour of it do not compensate the obvious drawbacks that are involved in making a free dissection and exposure of the artery, and that two ligatures are more dangerous than one as regards secondary hæmorrhage. Mr. Holmes believes also that the safest material for the ligature is either the ox-aorta ligature of Mr. Barwell, or the kangaroo-tendon ligature introduced by Mr. Stirling at St. George's Hospital.

1322. *Carver on Acute Necrosis of the Orbit.*—Mr. Carver, at a meeting of the Cambridge Medical Society, read the notes of the following case (*Brit. Med. Jour.*, June 1883, p. 1182). A strong-looking man, aged 21, came to London on a visit on March 28, when the left eyelid began to swell and was painful. The swelling rapidly increased. An incision was made, a little fluid escaping. Next day another incision was made, and pus escaped. On March 30 the patient complained of pain at the top of the head, the pain in the eyeball became very intense, the temperature 103°, pulse 120, skin hot and dry. There was no delirium. On March 31 there was profuse discharge from the lid, and the pain was better. About 7 P.M. the patient became very delirious, and died at 8 A.M. on the morning of April 1 from collapse. The necropsy revealed the whole of the orbital vault to be dry, bare, and of yellowish colour; the frontal sinuses filled with pus, and the lining membrane acutely inflamed. The dura mater at the spot, corresponding with the middle orbital plate, was thickened, adherent, and sloughing. All the convolutions of the brain were covered with tenacious offensive pus. There was no history to enable one to assign a cause for the attack, the patient himself attributing it to the cold wind.

1323. *Marsh on Operations on Phthisical Patients.*—Mr. Howard Marsh, in the *Brit. Med. Jour.*, June 1883, p. 1121, reports four cases where

he performed operations on patients suffering from well-marked phthisis. One case was that of a man whose thigh was amputated in the middle third, the patient being discharged six weeks afterwards, gaining flesh and strength, with much less cough than when admitted. The second case was that of a man whose left wrist-joint was diseased, and who at the time of operation was losing flesh and sweating a great deal at night. The wrist-joint was amputated, and the patient improved greatly in his general condition. A third case required Syme's amputation for disease of the ankle-joint, and was marked by general improvement in health. The fourth case was one of disease of the tarsus, on whom Pirogoff's amputation was performed, with decided benefit to the general health of the patient. Mr. Marsh remarks that the old practice of not operating on patients suffering from phthisis is an error in many cases, as much can be done in removing a local disease, which of itself often causes a rise of temperature to 102° or more, independently of any phthisis. The arguments that apply to a case of fistula do not hold good in cases such as those given by Mr. Marsh. [A large series of cases that have occurred during the last thirty or forty years may be consulted at Section 1630 : 3 of the *Medical Digest*.]

1324. *Myrtle on some Common Affections of the Anus often Neglected.*—Dr. Myrtle, in the *Brit. Med. Jour.*, June 1883, p. 1061, comments upon some of the common affections of the anus. The first he notices is pruritus ani, which is most painful to bear, and which, when it has existed for a long time, causes the mucous membrane, through constant scratching, to become hard, thick, and corrugated; then nothing effects a cure but the removal of the whole affected skin and mucous membrane by the knife. Fissure is of much more common occurrence than one would at first believe, and is only successfully treated by an operation. Hæmorrhoids are often neglected, and it is a common remark, 'Never mind, bleeding piles are safe; take a spoonful of electuary at bed-time.' This is bad advice, as an operation is nearly always needed. Another affection to which attention is drawn is a form of neuralgia produced by cold, either from the bed-clothes being too scanty or from sitting on a cold seat. This is best relieved by warmth. In nearly all these cases, Dr. Myrtle insists that a surgeon should see the case, as medical treatment is of little use.

1325. *Taylor on the Treatment of Spermatorrhœa.* Dr. H. C. Taylor, in the *Brit. Med. Jour.*, March 1883, p. 562, writes saying that in cases of spermatorrhœa he adopts three modes of treatment—(1) moral, (2) hygienic, (3) medicinal. A mixture containing tincture of perchloride of iron and tincture of nux vomica given twice a day, with a pill containing a fourth or a third of a grain of belladonna with three grains of camphor, at first every night, then every other night, before going to bed, seems to be the best medicinal treatment. At page 600, Dr. Adam recommends the following prescription for spermatorrhœa. ℞ Liquor. strychniæ ʒj., acid. phosphor. dil. ʒiv., tinct. cardam. co. ʒvj., infus. calumbæ ad ʒviij. Sumatur ʒss. nocte maneque ante cibum.

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1326. *Wagner on the Treatment of Fracture of the Larynx.*—Dr. W. Wagner of Königshütte, in a contribution to the *Centralbl. für Chir.*, No. 23, 1883, points out that fracture of the larynx is very rarely met with, and that not even the most experienced surgeons are in a position to derive from personal experience fixed rules for treating this injury. Most observers, however, agree that in such cases the first indication is the performing of tracheotomy in order to prevent suffocation. Occasionally, where there is much displacement of the fragments, it is advisable to perform thyreotomy. A case is reported of multiple fracture of the larynx, which led the author to consider the subject of the treatment of this injury, and convinced him that further therapeutic measures were necessary beyond opening the trachea. The subject of this case was a robust and very powerful man, whose neck had been forcibly squeezed in a fight. He remained unconscious for about half an hour, and on recovering himself found that his breathing was very bad. On the following day, when the patient first came under the notice of Dr. Wagner, there was extreme dyspnœa; and, with coughing, much blood, partly fluid, partly coagulated, was brought up. The face, neck, and surface of the thorax were distended through emphysema. There was found to be free abnormal mobility of the left wing of the thyroid cartilage; and during the prompt performance of superior tracheotomy the cricoid was found to be also fractured, and partly torn away from the upper ring of the trachea. The patient did well up to the third day after the date of operation, when signs were presented of hypostatic pneumonia on the left side, and there was a complaint of acute pain beneath the sternum. On the evening of the fourth day, there was free bleeding from the wound in the trachea, and on the following day the patient died. On *post mortem* examination, there was found to have been mediastinal emphysema and suppurative mediastinitis. The lungs, with the exception of the lower lobe on the right side, appeared quite healthy. Dr. Wagner thinks now that in any similar case of laryngeal injury thyreotomy would be indicated, not so much for the purpose of replacing any fragments of cartilage, as for rendering the seat of fracture antiseptic and for maintaining for a time this antiseptic condition. In a recent case of this kind he would, after having plugged the trachea, incise the larynx in the middle line, and then separate the two wings of the thyroid cartilage so as to be able to see the whole of the interior of the larynx and to apply some antiseptic fluid. He would then plug the interior of the larynx with small pieces of iodoform gauze. The wound would thus be rendered antiseptic, the fragments of broken cartilage be kept at rest, and the risk of hæmorrhage be diminished. If there be no longer any danger of infection, a late thyreotomy, it is held, is still justifiable if performed with the view of putting displaced fragments of cartilage in a better position, and, if the thyroid cartilage be fractured, of uniting the alæ by silver suture. If the fragments of the thyroid cartilage cannot be thus united, or if stenosis cannot be prevented, Dr. Wagner would advocate extirpation of the partially detached portion of thyroid cartilage, and even removal of half the larynx. In a case reported by Billroth in which this partial operation had been performed, a good voice was retained, and, at all events, the patient is thus placed in a better position than that of having to go through life with a completely useless and much obstructed larynx.

1327. *Kümmell on Deligation of the Common Iliac Artery.*—The following case, treated by Professor Schede, was reported by Dr. Kümmell, of Hamburg, at the twelfth congress of the German Surgical Society (*Centralbl. für Chir.*, No. 23, 1883). The

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The word **MALTINE** is our Registered Trade Mark, and applies **solely** to our preparations.

In its preparation the temperature employed does not exceed 150 deg. Fahr., thereby retaining all the nutritive and digestive agents unimpaired. The German process, under which Extracts of Malt are made from Barley alone, directs that the mash be heated to 212 deg. Fahr., thereby coagulating the Albuminoids, and almost wholly destroying the starch digestive principle, Diastase.

LIST OF MALTINE PREPARATIONS.

MALTINE Plain
MALTINE with Hops
MALTINE with Alteratives
MALTINE with Beef and Iron
MALTINE with Cod-Liver Oil
MALTINE with Cod-Liver Oil and Pancreatine
MALTINE with Cod-liver Oil and Iodides.
MALTINE with Cod-liver Oil and Phosphorus
MALTINE with Cod-Liver Oil and Phosphates
MALTINE with Iodides
MALTINE with Hypophosphites
MALTINE with Phosphorus Comp.
MALTINE with Peptones
MALTINE with Pepsine and Pancreatine
MALTINE with Phosphates
MALTINE with Phosphates, Iron, and Quinia
MALTINE with Phos., Iron, Quinia, & Strychnia
MALTINE Ferrated
MALTINE WINE
MALTINE WINE with Pepsin and Pancreatine
MALTO-VERBINE
MALTO-VIBURNIN

NOTES AND QUERIES ON MALTINE.

Why does Maltine (malted wheat, oats, and barley) contain much larger proportions of Constructive and Nutritive properties than the best Extracts prepared from Barley alone?

Because Chemical Analysis has shown that Wheat and Oats contain much larger proportions of Albuminoids and Nitrogenous elements than Barley. Gluten, which is found very abundantly in Wheat, is the most nutritious element obtained from the Cereals, and the only vegetable substance that will support life indefinitely. Wheat contains from 15 to 35 per cent. of Gluten. Its proportion in other grains is insignificant. (*See Flint's Physiology of Man, p.* 52.) The Nitrogenous principles of Wheat and Oats, *when malted*, are more soluble than they are in Barley, and it is for this reason that dairymen will pay fivepence to sevenpence per bushel for the refuse of grains from malted Barley, whereas they will not accept the refuse grains from Malted Wheat and Oats as a gift.

'Wheat and Oats stand first among our list of Cereals in combining all the elements in proportions necessary to support animal life. They are especially rich in muscular and fat-producing elements. 'Baron VON LIEBIG.'

Why does Maltine contain much larger proportions of the digestive principle, Diastase, than the ordinary Extracts prepared from Barley alone?

Because the Gluten and Ceraline in the Malted Wheat have sufficient power to convert all the starch of the three Cereals into sugar, leaving the unemployed Diastase of the Wheat, Oats, and Barley in the Maltine. Gluten and Cerealine act as powerful ferments, transforming starch, first into dextrine, and then into sugar. (*See Flint's Physiology of Man, p.* 53, *and Watts' Dictionary of Chemistry, vol. i., p.* 657; *vol. ii., pp.* 625 *and* 823.)

Drs. William Roberts and J. Milner-Fothergill recommend Maltine to be mixed with the food, or taken during the meal, to get the best effects of the digestive principle, Diastase.—*Practitioner*, January 1881.

We shall be pleased to furnish Samples of our preparations to any Medical Practitioner desiring them.

Maltine will keep perfectly in any climate or season of the year.

MALTINE and COMPOUNDS in Bottles containing 8 and 16 fluid ounces, equal in weight to 12 and 24 ounces, and in Winchester Quarts, 120 ounces in weight.

THE MALTINE MANUFACTURING COMPANY, LIMITED.
24 & 25, Hart Street, Bloomsbury, London, W.C.

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BEEF PEPTONOIDS

A Concentrated Powdered Extract of Beef, Partially Digested and Combined with an Equal Portion of Gluten.

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'CARNRICK'S' BEEF PEPTONOIDS contain *only the nutritive portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescence, and in order to present the preparation in a powdered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of 'CARNRICK'S' BEEF PEPTONOIDS represent as much nutritive and stimulating properties as forty-eight ounces of the best lean Beef.

Four ounces of 'CARNRICK'S' BEEF PEPTONOIDS contain more nutritive elements than ten pounds of any Extract made by Liebig's formula, and from four to six times more Albuminoids and Fibrinoids than any Beef Extract ever offered to the Medical Profession.

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'CARNRICK'S' BEEF PEPTONOIDS *is much less expensive than any other preparation in the market, as it contains neither water or inert matter.*

The favour our preparation of BEEF PEPTONOIDS received at the hands of Drs. Agnew, Bliss, Hamilton, Reyburn, Woodward, Barnes, &c., the corps of eminent Physicians, who employed the preparation with so much advantage in the treatment of the late President Garfield, proves conclusively its great value, not only as food to be taken by the mouth, but also how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of Dr. D. W. Bliss, in New York *Medical Record*, July 15, 1882, in which he so frequently refers to our BEEF PEPTONOIDS having been used to so great an advantage, not only in the case of the late President Garfield, but many others as well.

A reliable and experienced person is employed to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable Beeves are employed in making our BEEF PEPTONOIDS.

Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would, in many cases, produce lasting injury and fatal results.

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Convalescence from all diseases, Fevers, Pneumonia, Weak Digestion, Diarrhœa, Dysentery, Phthisis, Cholera Infantum, Marasmus, Sea Sickness, Excessive use of Alcoholic Stimulants. Per Rectum in all cases where the stomach cannot digest the food, and in debility resulting from any cause. Also a valuable adjunct in voyages and camp life.

We shall be pleased to have the Profession everywhere test the value of this Preparation, and for that purpose we shall be happy to send a sample to any regular practitioner desiring it; also circulars fully explanatory.

Thanking the Profession for generous support in the past, we beg to remain, very respectfully,

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24 AND 25 HART STREET, BLOOMSBURY, LONDON, W.C.

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"PERHAPS DR. DRUITT conferred a greater boon upon the public than even he anticipated when directing the attention of the medical profession to the above-named wine—indeed, it is difficult to over-estimate the advantages to be derived by those of delicate constitution from the moderate use of the pure light and exhilarating sparkling wines produced in the ancient French province of Anjou, and named after its capital—Saumur.

Unfortunately, however, these wines, which were originally shipped to this country by Messrs. ACKERMAN-LAURANCE (who enjoy the reputation of being not only the oldest but also the first house in Saumur), no sooner began to find favour with the public than a host of imitators sprung up, and the United Kingdom was inundated with not only the most inferior descriptions of wine from the outlying poor and comparatively uncultivated districts of Saumur, but from every other district of France producing any wine that could be sweetened and made to effervesce. And as all these varieties—the wines of fine quality, medium quality, and common grades—were, and are still, shipped to this country under the same designation, that of 'Saumur,' it has become most difficult to discriminate between the good, indifferent, and bad varieties alluded to, and, as a natural consequence, there is a danger of the present consumption—many thousands of dozens annually—being seriously diminished.

Under these circumstances, we cannot sufficiently commend Messrs. ACKERMAN-LAURANCE for the decision, which we learn they have lately arrived at, namely, only to ship their special brand of 'Dry-Royal' Saumur Champagne to those houses who are willing to supply it to the public as imported, that is, with the brand of the wine and name of the shipper on the cork and label as a guarantee of quality, a course adopted many years ago by shippers of the finest champagnes, whose brands are now so celebrated.

So far as Messrs. ACKERMAN-LAURANCE are concerned, we should hope for and predict a like result, for we can bear testimony to the excellent quality of their 'Dry-Royal' brand of Sparkling Saumur, and consider the wine as pure, wholesome, and exhilarating as the most expensive champagne, while it can be obtained at about half the cost of the latter, namely, three shillings a bottle, a price which brings it within the reach of all consumers of sparkling wines."

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NOT FARINACEOUS.

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This is the only food in which the whole of the starch has been reduced into dextrine and grape-sugar, and hence it is the only one which can be conscientiously recommended by the Medical Profession, when artificial feeding has to be resorted to.

It will be found the best food for invalids who cannot digest farinaceous matter through imperfect mastication and insalivation.

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'5 George Street, Hanover Square, May 17, 1870.—Your preparation of Liebig's Food is by far the best of any with which I am acquainted. It seems to agree equally well with children, whether they are healthy or diseased, and is well borne as a rule by the youngest infants. A Food which fulfils these conditions requires little to be said to recommend it, and I have no doubt that it has by this time a very large sale.—EUSTACE SMITH, M.D.—To Mr. Mellin.'

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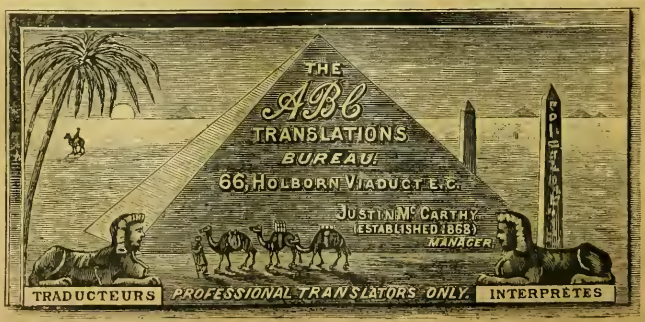


patient, a man aged 21, was first operated on for inguinal bubo on each side. On the left side, it was thought necessary to perform total extirpation of a mass of enlarged glands situated on the sheath of the large vessels. The wound, which had been covered by carbolic gauze, which unfortunately was old and deprived of most of its antiseptic properties, became infected, and was soon covered by a greyish diphtheritic deposit. Four days after the operation, there was free hæmorrhage from the perforated femoral artery. Professor Schede applied a double ligature to this vessel, divided it between the two ligatures, and applied dressings of corrosive sublimate to the wound. This put on a healthy appearance and was almost wholly clean, when, on the fourth day after the application of the ligatures, profuse secondary hæmorrhage came from the proximal end of the femoral artery. As it was impossible to secure the bleeding vessel *in loco*, the external iliac artery was tied by the usual incision through the abdominal muscles. The bleeding from the femoral artery, however, still persisted, and a second ligature applied to the external iliac just below the bifurcation had an equally bad result. The common iliac artery was then tied. An incision about two inches and a half in length was made at right angles to that made over the external iliac vessel, the peritoneum was pushed upwards, and, after some trouble had been experienced in isolating the vessel, a catgut ligature was applied to the common iliac. The hæmorrhage from the femoral ceased at once. The patient did well for a few days. On the morning after the operation, the circulation was completely restored in the whole of the corresponding lower extremity, and its sensibility and mobility were normal. Ten days later, however, there was serious retrograde hæmorrhage from the peripheral end of the femoral artery at the seat of the original deligation. A ligature was applied about three-quarters of an inch below this point, but did not arrest the bleeding, and then three large vessels were observed coming off from the femoral artery between the ligature and the seat of hæmorrhage. These having been secured by ligatures, the bleeding was arrested, but unfortunately the supply of arterial blood to the leg was thus cut off. Gangrene came on, and on the third day there was a distinct line of demarcation near the junction of the middle and upper thirds of the leg. Notwithstanding his extremely exhausted condition after all these operations, and a subsequent attack of chronic pyæmia with metastatic abscesses in the muscles of the buttock and arm, and effusions into the right knee, elbow, and temporo-maxillary joints, the patient recovered so far that he was able to leave the hospital on crutches.

Deligation of the common iliac artery has, Dr. Kümmell states, hitherto been performed fifty-five times, chiefly by English and American surgeons. Only three cases, all fatal, have been recorded in which this operation had been performed by German surgeons. The indications for performing the operation have been hæmorrhage from the external iliac, or from any large pelvic artery after wound or ruptured aneurism, aneurism of the femoral or external iliac arteries, and, finally, prevention of hæmorrhage during amputation at the hip and extirpation of tumours. In forty-one of these cases death resulted through collapse, gangrene of the extremity, and, most frequently, septic infection. In three only of twenty-two fatal cases in which a ligature had been applied to the common iliac artery for the cure of aneurism was death due to gangrene, whilst in twenty-six fatal cases in which the external iliac had been tied for aneurism, this operation was followed by gangrene in eleven. Thus it seems that deligation of arteries situated nearer to the heart is much less dangerous to the vitality of the lower extremity, and is followed by more speedy and ready establishing of a collateral circulation. Deligation of the common iliac artery, therefore, is to be preferred in cases of high aneurism of the femoral, and of aneurism of the external iliac, even when it is possible to apply a ligature to this vessel.

1328. *Nepveu on Resection of the Wrist for Disease.*—In a contribution to the May number of the *Revue de Chirurgie*, Dr. G. Nepveu, of Paris, gives an analysis of sixty collected cases of pathological resection of the wrist. Of these, six cases, which are published at length, occurred in the hospital practice of M. Verneuil. In seventeen of the cases, the operation had been performed by Esmarch. In twenty-eight only of the sixty cases does the resection seem to have been total. Dr. Nepveu's list, however, is evidently a very incomplete one, and no reference is made to Lister's published cases. Dr. Nepveu's views as to the operation are expressed in the following conclusions. 1. Carpal, radio-carpal, and carpo-metacarpal resections for disease are not very serious operations with regard to life, especially when they are performed antiseptically. 2. They are sometimes followed by good results, with regard to removal of the local disease and preservation of an useful limb. 3. Perfect results, however, are very rare, and have been observed in barely one-fourth of the number of cases. The most frequent result is an incomplete cure, and very imperfect restoration of the function of the extremity. 4. More serious terminations are just as frequent. Sometimes the operation itself is directly or indirectly fatal; at other times, it does not arrest the course of the disease, and amputation through the forearm becomes necessary. Again, notwithstanding a good local result, the patient succumbs sooner or later to pulmonary tuberculosis. 5. With regard to a definite and complete curative result, resection of the wrist is not a promising operation. 6. This failing of the operation is due in part to the fact that it has been frequently practised under very unfavourable conditions. It is contra-indicated in cases of osteo-arthritis, and particularly of articular and tendinous synovitis with tubercular deposits, which should be treated promptly by amputation. Resection, probably, should be rejected in the treatment of disease of the wrist in old people and in phthisical subjects, and should be practised but exceptionally in cachectic scrofulous patients. 7. To improve the functional results, it is necessary to diminish the extent of the operative procedure, to extract as little bone as possible, and to preserve as much as one can of the dorsal and plantar layers of ligamentous and periosteal structures. 8. Above all, it is necessary not to operate until all the resources of conservative therapeutics have been exhausted. Rest, compression, blistering, drainage, prolonged antiseptic baths, have given excellent results in cases where the constitutional condition was so serious as to forbid any operative interference. The results of this combined treatment compare not unfavourably with those of resection, even in cases where operative interference seemed justifiable. Dr. Nepveu does not discuss the subject of traumatic resection of the wrist, as he

cannot imagine how this operation is ever likely to be thought necessary.

1329. *Prince on the Bead Suture.*—Dr. David Prince, of Jacksonville, U.S., describes in the *Annals of Anat. and Surg.*, March 1883, a modification of the quilled suture for palatoplasty, and for use in situations in which the suture line requires to be supported for several days. The procedure to which attention is thus directed is an interrupted suture in which two sutures are joined in one, so that a bead at either lateral extremity of the suture has a wire or thread passing through its centre. The twist of the two ends of the wire enables the operator to increase or diminish the tension after the suture line has been closed. This, it is suggested, is a very desirable quality of a stitch in a situation like that of the mouth, the stitch having no covering, and the suture line having no possible support except that of the stitches themselves. The suture is equally applicable to operations in the vagina, where any support to the stitches is impracticable. Beads of polished glass, on account of their smoothness, are superior for this purpose to spheres of lead. There is no trouble in adjusting spherical beads, and, as they lie loosely upon the silver wire, they are ready, when the wire is cut at the final removal of the stitches, to slip off without difficulty. The manner of application of the bead suture, Dr. Prince states, is very simple and easy ; but it cannot be well explained without reference to the cuts by which his article is illustrated. There are many situations in which the employment of this beaded suture will, it is thought, be found convenient and efficient. The principle of this stitch is not new, but only the form and material of it. When this stitch is employed on the soft palate it answers at the same time the purpose of a suture and of a splint, and holds in continuous apposition parts that are moved in every act of swallowing and speaking. The same advantage is to be derived from the use of this bead suture in operations for the closure of rents in the vagina, where movements occur during evacuation of the rectum and bladder.

1330. *Fenwick on Excision of the Knee-Joint.*—Dr. G. Edgeworth Fenwick, of Montreal, has recently published a small work on excision of the knee, with a report of twenty-eight cases in which this operation has been performed at the Montreal General Hospital. The total number of cases at all ages was twenty-eight, and of these two only were fatal. In one of these, death cannot be considered as due to the operation. In two cases the leg had to be amputated subsequently, and both patients recovered. All the others left the hospital with useful limbs. The last fifteen cases were treated with full antiseptic precautions, and all recovered. The patella was removed in every case. In all the successful cases, firm conjunction was obtained in from eight weeks to four months. Dr. Fenwick advocates warmly the use of Dr. Watson's apparatus during the after-treatment, and brings prominently forward a method of section of the bones which in his hands has yielded excellent results, and to which he attributes much of his success. In removing the head of the tibia, the section should be made from behind forwards, rendering it concave, and fitted for the reception of the extremity of the femur, which has been rounded off on section and rendered convex.

1331. *Stokes on Nerve-Stretching in Tabes Dorsalis.*—In a paper on the therapeutic value of nerve-stretching in tabes dorsalis, read at a meeting of the Surgical Section of the Academy of Medicine in Ireland on April 20 (*Dublin Journal of Medical Science*, June 1883), Mr. Stokes first pointed out that the evidence afforded by the cases of tabes dorsalis treated by nerve-stretching, indicated the fact that relief may be anticipated from some of the most distressing symptoms of that disease, if the operation be performed sufficiently early. The absence of a physiological explanation as to how the operation acts is no reason, he considers, for its rejection. He has performed this operation in two well-marked examples of the disease, in one of which the sciatic nerve was stretched on one side, and in the other on both sides. Although the operations were not followed by any signal improvement in motor power, the results in other respects, as regards relief from darting pains, vesical irritability, and return of sensibility in certain regions of anæsthesia, were satisfactory and encouraging. Mr. Stokes insists on the importance of estimating accurately the amount of force that should be used, and is of opinion that a very moderate amount is sufficient to obtain the desired therapeutic results. He believes that many of the recorded failures of the operation are to be attributed to the employment by the surgeon of an undue amount of force. He advocates the use of an electric cord and dynamometer in nerve-stretching, and believes that in the case of the larger nerves a force of ten pounds would be found sufficient. Although a satisfactory physiological explanation as to how nerve-stretching produces the results observed is still to be obtained, we are not, it is believed, wholly in the dark. Dr. Brown-Séquard and Dr. Charlton Bastian are quoted, to show that after the operation a certain amount of vaso-paralysis is produced, resulting in vascularity and increased temperature of the part, and that the improvement which occasionally follows the operation is probably connected with those phenomena.

1332. *Robson on Separation of the Lower Epiphysis of the Femur.*—Mr. A. W. Mayo Robson, of Leeds, in a paper on separation of the lower epiphysis of the femur (*Liverpool Medico-Chirurgical Journal*, July 1883), puts on record three cases of this rare lesion, which have occurred during the last twenty years in the Leeds General Infirmary, under the care of Mr. Hey, Mr. Wheelhouse, and Mr. Atkinson. In the first of these cases, amputation of the thigh was performed on the forty-third day for gangrene ; in the second case, primary amputation of the thigh was performed ; and, in the last case, excision of the displaced epiphysis was practised in the twelfth week after the receipt of injury. Reference is made in the new edition of Holmes and Hulke's *System of Surgery* to two cases only of separation of the lower epiphysis of the thigh-bone ; and in Dr. Hamilton's work on *Fractures and Dislocations* five cases are quoted, in four of which amputation had to be performed. In all the recorded cases, extreme direct violence was the cause of the diastasis. In one of the cases mentioned, the nature of the injury remained doubtful for a time, in consequence of the external swelling. In most cases, however, there can, Mr. Robson states, be but little difficulty in the diagnosis, since the shortening of from one to two inches, the projection of the lower end of the diaphysis in the popliteal space, the displacement of the epiphysis on to the front of the femur, and the interference with the circulation in the leg, taken together with the cause of the injury and the age of the patient, form a group of symptoms pathognomonic

of this form of fracture. The dangers, besides the usual ones consequent on so severe an injury, arise from the pressure of the lower end of the fractured shaft on the popliteal vessels, interfering seriously with the circulation in the leg, and either producing great œdema or gangrene, or else leading to secondary hæmorrhage. As regards treatment, Mr. Robson thinks that reduction under ether would be the best plan to try at first; and this, it is pointed out, would certainly be facilitated by division of the tendo Achillis. Then, after reduction, either the long splint with weight and pulley, or the double inclined plane, might be employed. Should reduction be impossible, or retention of the fragments unattainable, then excision might be adopted; but if the large vessels have been ruptured, or if gangrene occur, then amputation can be the only resource.

1333. *Lidell on Contusion of the Spinal Cord.*—The following is an abstract of a portion of an original communication (*American Jour. of the Med. Sciences*, July 1883) on contusions of the brain and of the spinal cord, by Dr. John A. Lidell, late surgeon to Bellevue Hospital, New York. Contusions of the spinal cord are of frequent occurrence, and are often met with in cases of vertebral fracture and dislocation. In such cases, it very often happens that the theca is not torn; and, not unfrequently, on laying it open, and finding the spinal pia mater entire and without ecchymosis, and the exterior of the cord as well free from any morbid appearance, one might imagine the cord itself to be uninjured, while, at the same time, the grey substance of its interior is extensively disorganised and infiltrated with dark-coloured blood, in consequence of the bruising to which the cord has been subjected. In cases where the rachidian concussion is very severe, and there is severe contusion of the cervical part or the beginning of the dorsal part of the cord, the prognosis is always very bad, for the patient is liable to perish before reparation of the bruised cord-substance can be effected, in consequence of suffocation slowly produced by stagnation of venous blood in the lungs, due to the respiratory movements not being adequately performed; a necessary result when the conducting functions of the cord are suppressed in the cervical region, and all the respiratory muscles save the diaphragm are paralysed. When, however, the contusion is seated in any portion of the spinal cord whereof the constituent filaments and nerve-cells do not exert any control over the movements of the muscles employed in the act of breathing, repair and recovery may doubtless be effected, and the prognosis in such cases is therefore much more favourable. At any rate, it is scarcely more unreasonable to expect to obtain the cure of such cases by treating them judiciously, than it is to expect to obtain the cure of so-called infantile spinal paralysis, wherein the lesion consists of disorganisation of the grey matter in the anterior cornua of the spinal cord. In conducting the treatment of contusion of the substance of the spinal cord, the indications to be fulfilled are: (1) to promote absorption of the extravasated blood; (2) to lessen the hyperæmia of the cord, both arterial and venous, which is always liable to supervene in such cases; and (3) to prevent the development of myelitis, especially its suppurative and diffuse or ascending forms, as well as the development of spinal meningitis. A remedial measure of great importance in such cases is quietude or rest of the injured part, as nearly absolute as possible. The prone position is considered to be preferable to the supine, unless it greatly discomfort the patient, for it readily permits the application to the back of leeches or cups, or the ice-bag. At the same time, the back being the highest instead of the lowest part of the body, the tendency to hypostatic congestion of the rachidian veins is much diminished by the prone posture of the patient, and the tendency to myelitis and spinal meningitis is also correspondingly lessened. Rachidian congestion, venous as well as arterial, can, Dr. Lidell asserts, be considerably lessened by administering iodide of potassium in ten-grain doses, or full doses of fluid extract of ergot. The treatment of simple concussion of the spine, or of concussion complicated with slight contusion of the substance of the cord should, it is held, consist in the application of numerous dry cups to the back on each side of the spinous processes, in the administration four times a day of extract of belladonna in doses of a quarter of a grain, and in rest in bed. Should the patient refuse to rest quietly in bed until the spinal symptoms have entirely passed away, he will be very liable to acquire suppurative myelitis and incurable paraplegia.

1334. *Pinner on a Case of Fat-Embolism.*—The following case from the hospital of Prof. Maas is recorded by Dr. O. Pinner in the *Berlin. Klin. Wochensch.*, No. 13, 1883; and also by Dr. Janicke, of Breslau, in the *Centralbl. für Chir.*, No. 25, 1883. The patient, a man aged 61, was run over and received a compound fracture of the head of the left fibula, with extensive crushing and bruising of the soft parts. At the first examination of the injured limb, the blood flowing from the wound was observed to be mixed with oil. Although the wound remained in an aseptic condition, and the patient had recovered from the immediate effects of the injury, death occurred on the third day after the appearance of symptoms which indicated pulmonary and cardiac disturbance, and also some mischief in the sensorium. At the necropsy the following abnormal conditions were observed: extensive crushing of the subcutaneous adipose tissue about the seat of fracture in the left leg; fat-embolism, considerable and well marked in the lungs, slight in the kidneys; intense pulmonary œdema; much oil mixed with the blood in the left cavities of the heart, and a smaller quantity in the right cavities and in the sinuses of the base of the cranium; pulmonary emphysema; slight hypertrophy of the right ventricle; traces of chronic bronchitis. Microscopic examination revealed fat-emboli scattered throughout both lungs, and a few isolated similar deposits of oil in the renal structure.

There can be no doubt, Dr. Pinner states, that the fatal result in this case was due to fat-embolism of the lungs. The lesser circulation had been rapidly invaded by large quantities of oil, and the effects of this condition rendered more serious in consequence of the pre-existing emphysema and chronic bronchitis. The disproportion between such abundance of fat in the circulation, and such a small fracture, is explained by the supposition that the extensive injury to the subcutaneous adipose tissue which complicated the injury to the bone, contributed to the absorption of oil by the open blood-vessels, the discharge of this oil externally having been obstructed or wholly prevented. With regard to the negative results of the examination of urine in this case, Dr. Pinner is of the opinion, which is supported by the microscopical observations, that the excretion of

oil by the kidneys had not commenced before death. It seems very probable from this case and from the observations of Scriba, that the elimination rarely takes place before the third or fourth day after the injury. In conclusion, Dr. Pinner remarks with regard to Scriba's statement that in pure fat-embolism there is a lowering of the temperature, that in cases of fracture there is not unfrequently a not inconsiderable rise in consequence of the absorption of fibrine-ferment. Thus, in a case of fat-embolism from fracture, there may be two factors which may more or less neutralise each other.

1335. *Lange on Extirpation of the Rectum for Cancer.*—In January of this year, Dr. Lange brought under the notice of the New York Surgical Society (*Annals of Anat. and Surg.*, July 1883) a patient from whom he had removed the lower part of the rectum for cancer, and, to facilitate the operation, had also removed the coccyx. The patient had been operated upon twice, the second time for recurring disease within the pelvis, in the depth of the ischio-rectal fossa. This case was put on record, in order to illustrate the comparatively good functional result which followed the operation. The patient was able to control the discharges from the bowels perfectly. Flatus escaped, however, without control on the part of the patient. The first operation was performed in January 1882, and the second operation in the following October. The coccyx was removed at the first operation. At the second operation some extent of mucous membrane was removed on account of prolapsus. The removal of the coccyx at the first operation facilitated operative measures very much. There was not much obstruction of the bowel before the performance of the first operation. The patient had not been aware of the existence of the disease until about six weeks previously, although extensive disease of the rectum was found at the time of the operation. He thought that he was the subject of hæmorrhoids, and had been treated for that affection. The explanation which Dr. Lange gives of the fact that the patient can control the discharges from the bowels is, that the sphincter tertius had maintained its functions. It could be felt as a weak and soft somewhat incomplete closure immediately above the new external opening.

W. Johnson Smith.

1336. *Garcia on the Reduction of Paraphimosis.*—Garcia recommends a useful modification of Boyer's method. He begins by applying over the whole member, from vertex to base, a spiral bandage, narrow and wetted with cold water, the patient being told to continually pour a stream of cold water over the affected part. After five minutes the bandage is taken off and replaced rapidly by another in the same manner, but tighter; the irrigation is continued. After five more minutes, the second bandage is taken off and a third is applied, still more tightly. After a little time we may proceed to the reduction by the ordinary method, seizing the member with the index and middle finger of each hand, and pushing the glans with both thumbs. Reduction is generally easy. The number of times that the bandage must be applied depends naturally on the amount of tumefaction and the effect obtained by each application.

1337. *Ficher on Partial Resection of the Bladder.*—Ficher has made a series of experiments on dogs, resecting parts of the bladder. Of eight animals operated on five survived; in all strict antiseptic precautions were taken. He concludes from these experiments that wounds of the bladder and its suture are not more dangerous than any other grave abdominal operation; union of the edges of the vesical wound, if the suture be carefully done, takes place without difficulty. The author prefers catgut for this kind of suture, and employs the continuous and not the interrupted form.

1338. *Minich on Iodoform in Surgical Dressings.*—The author's conclusions are these (*Atti del R. Istit. Venet. di Scienze, Lettere, ed Arti*, Vol. I.). Iodoform is of great value as an antiseptic; it is not a specific against tubercular disease of the bones and soft parts; it is a dangerous remedy, and requires care in use; it must not be applied over a large surface, especially in the tissues rich in fat, in the cavity of the abdomen, in the aged, in individuals with fatty degeneration of the heart or with albuminuria, nor in persons suffering from hysteria or hypochondriasis. The quantity used must be small, not exceeding possibly 4 grammes. The patient treated by iodoform must be watched carefully, especial attention being paid to the frequency and force of the pulse, the tendency to somnolency, and the mental state. On the occurrence of suspicious phenomena the dressing must be changed, and the little particles of iodoform carefully removed by repeated washings. With iodoform only, antiseptic medication in operations in the mouth, vagina, and rectum, is possible. Cases of poisoning, too frequent in the past, will become more and more rare since surgeons, warned by experience, use iodoform in small quantities only. In the hospital at Venice, no accident has ever happened. In one individual only, suffering from pellagra, treated for diffused inflammation of the tunica vaginalis of the right testicle, after several days' treatment with iodoform dressings, signs of delirium showed themselves, which ceased on the removal of the iodoform. G. D'Arcy Adams, M.D.

1339. *Sutton on Ovariotomy with Enterotomy.*—A case of enterotomy complicating an ovariotomy is related in the *American Medical News* by Dr. R. S. Sutton. The patient, 50 years of age, passed through her last labour seventeen years previously, since which time she had suffered from, as she thought, disease of the womb. She had never derived any benefit from treatment, and was obliged to live on the simplest diet, giving up altogether cooked meats on account of the pain in the abdomen after eating them. Defæcation was always painful, and at times almost unbearable. She was pale and feeble; the abdomen was flat, but resonant everywhere, except along a line one inch above and parallel with Poupart's ligament. The dulness here was only slight, but on deep pressure decided pain was felt. Examination showed the uterus to be normal, with the exception of the remains of an old laceration of the cervix on the left side; but above and to the left of the uterus, and in front of the rectum, a mass about the size of a turkey's egg was discovered. It was movable upward, and tender on pressure. It was thought to be the left ovary, and probably the fimbriated extremity of the Fallopian tube, chronically enlarged and congested, adherent, and in a state of hyperæsthesia. The patient insisted that the abdomen should be opened to remove the mass, and it was accordingly done, when the tumour was found to consist of: 1, the ovary slightly enlarged; 2, the fimbriated extremity of the tube; 3, the broad ligament; 4, a loop of small intestine curve-shaped in the mass, and adherent to the broad ligament up to the fundus of the

uterus. The wall of the bowel was thickened. The gut being detached from the mass and broad ligament, it was laid on the surface of the abdomen at the margin of the wound, but broke off from its own weight and the slight traction necessary to prevent its falling back into the abdominal cavity, one end remaining in the hand of the assistant. The last end was recovered and dissected entirely free from the broad ligament, and, after removing the ovary and adhering tissue, the ends of the gut were united after the manner of Czerny. The abdominal cavity was cleaned out, and a long glass drainage-tube inserted. No spray was used, and the silk and the instruments were simply well scalded. The length of intestine removed was four inches. The patient made a good recovery, the temperature never rising above 101° F., and no drug except opium being used.

1340. *Judson on Traction in Hip-joint Disease.*—In the *New York Medical Record*, May 12, Dr. Judson has an article on the rationale of traction and counter-traction in the treatment of hip-joint disease. It is a feature of chronic joint-diseases, that there is always a certain amount of tonic spasm on the part of the muscles which move the joint. By this spasm the joint-surfaces are brought into close contact with each other, and the conditions which lead to atrophy or absorption, with consequent shortening, are developed. No extension which the patient can tolerate, or of traction, can widely separate the bone-ends, if at all. Those who regard the head of the femur as withdrawn from the acetabulum by any amount of traction, are in error. What is actually accomplished is the conquering of the muscular spasm and the rectification of malposition; seldom, if ever, anything more. But these are essential points, and no one who has his eyes opened to the true effect of traction will give it up because it does not accomplish all it had been reputed to do. Further, it will be found that no contrivance can make traction so effective as one which shall contain some India-rubber, in order to take advantage of its continuous elasticity; rubber will more quickly and more effectually tire out contracted muscles than any other substance.

1341. *Sarra on the Use of Coffee in Strangulated Hernia.*—Dr. Antonio Sarra relates (*Lyon Méd.* May 20) that he was called one evening to attend a man, aged 63, suffering from a strangulated hernia. The patient was nearly moribund, there was no appreciable radial pulse, the face was pinched, the extremities were cold, and the attempts to vomit were almost incessant. Remembering the report of a similar case relieved by coffee, Dr. Sarra ordered an infusion to be employed as a drink and also externally, and then took leave of the patient, warning the family that death was inevitable unless a prompt amelioration ensued. Upon returning early the next morning, he was surprised to find his patient in perfect health. The man stated that, soon after taking the coffee, he experienced a feeling of warmth and returning strength; then a large quantity of gas was expelled above and below; and when he put his hands upon the tumour it at once slipped back into the abdominal cavity, much to his astonishment as well as joy.

Inodorous Iodoform.—The peculiar odour of iodoform is found to be well masked by the addition of attar of rose, one minim to the drachm, or of essence of rose geranium, three or four minims to the drachm. The clinic room gets to smell like a florist's shop.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1342. Albertoni, Prof. P.—Cotoin and Paracotoin. (*Riv. di Chim. Med. e Farm.*, May and June 1883.)

1343. Galassi, Luigi. A Simple and Efficacious Method for the Cure of Obstinate Intermittent Fevers with Preparations of Bark. (*Bollett. della Reale Accad. di Med. di Roma*, 1882.)

1344. Diani.—Trichlorated Phenol. (*El Siglo Medico.*)

1345. Eberman.—On Ferruginous Koumiss. (*Medizinsky Vestnik*, 1882, No. 22.)

1346. Albrecht.—Inhalation of Oxygen in Tuberculosis. (*Deutsche Med. Wochensch.*, July 18.)

1347. Extractum Piscidiæ. (*Wiener Med. Blätter*, July 19.)

1348. Von Ziemmsen.—Distension of the Large Intestine with Carbonic Acid Gas. (*Ibid.*, July 19.)

1349. Fraentzel.—Hydriodate of Hyoscin in Phthisis. (*Wien. Med. Blätter*, July 5.)

1350. Lindner.—Arsenic in Phthisis. (*Deutsche Med. Wochensch.*, Aug. 22.)

1351. Phosphate of Codein. (*Wiener Med. Blätter*, Aug. 16.)

1352. Duboué.—Ergot in Enteric Fever.

1353. Althaus.—The Risks of Massage. (*Brit. Med. Jour.*, June, p. 1223.)

1354. Fothergill.—Stewed Fruit for the Gouty and Dyspeptic. (*Lancet*, July, p. 7.)

1355. Paterson.—Sanitas Oil in Psoriasis. (*Ibid.*, July, p. 45.)

1356. Thorowgood.—On Doses. (*Med. Times and Gazette*, June, p. 725.)

1357. Atkinson.—The Treatment of Ulcer of the Stomach. (*Practitioner*, July.)

1358. Stewart.—Cascara Sagrada in Adynamic Constipation. (*Detroit Lancet*, April.)

1359. Paul.—The Use of Lobelia Inflata. (*Ibid.*)

1360. Créquy.—Preparations of Aconite. (*Revue de Thérap.*)

1361. Calleza.—Salicylate of Soda in Diarrhœa. (*Lyon Méd.*, May 20.)

1362. Desguin.—Glycerine in Skin-diseases. (*Med. and Surgical Reports.*)

1363. Castor-oil and Glycerine. (*New York Med. Record.*)

Art. 1342. *Albertoni on Cotoin and Paracotoin.* In a careful and elaborate study on the action of cotoin and paracotoin, Prof. Albertoni comes to the conclusion that, unlike any other known drug, they produce an active dilatation of the abdominal vessels. This active dilatation is caused by no other substance, the action of cotoin being unique. Salvioli has shown that opium increases the blood-supply of the intestine, and Mosso that chloral has the same effect on the kidneys. But the dilatation caused by chloral and opium is not active, but rather paralytic, depending on paralysis of the vessels. Chloral and opium diminish the blood-pressure. That cotoin should cause active dilatation of the abdominal vessels only, and have no influence on others, is in accord with what we know of the influence of other substances. Mosso has drawn attention to this subject; and the author has shown (*Lo Sperimentale*, 1881) that atropine, in certain doses, while it causes dilatation of the peripheral vessels, induces contraction of the cerebral vessels, and that both these actions are contrary and independent. Cotoin is indicated in the diarrhœa which often occurs in the

various forms of mental alienation. It is certain that in the diarrhœa of the insane defective absorption plays a notable part. In simple chronic intestinal catarrh, in the diarrhœa of wasting and cachexia, and in atonic diarrhœa, cotoin gives the best results. In the intestinal catarrh of drunkards, and in that accompanying hepatic cirrhosis, it has not proved efficacious. In the diarrhœa of phthisis it is very valuable, but not if there be ulceration of the intestines. It is very useful, also, in the diarrhœa complicating pellagra; this diarrhœa certainly depends on rheumatism of the intestine, which is often found much atrophied in *post mortem* examination. In the diarrhœa of teething children it is of great service. In cases of ulceration of the intestine, and where there exists a hyperæmic condition of the intestine with liability to hæmorrhage, it is contra-indicated. The author recommends large doses, 15 to 20 centigrammes (2·3 to 3 grains). These doses are well borne, and cause no unpleasant symptoms. It may be given in a wafer, or suspended in mucilage, which is best if the stools be frequent, as absorption is easier. His formula is—cotoin, 40 centigrammes (6½ grains); bicarbonate of soda, 1 gramme (15·4 grains); water, 100 grammes; glycerine, 20 grammes. The solution, which is made by heat, is not perfect; the bottle must therefore be shaken before the dose is poured out. He also gives it with bismuth in mucilage. It is very useful in the night-sweats of phthisis. In dysentery it has not proved efficacious. Paracoto bark and paracotoin have the same physiological and therapeutical effects as coto bark, but their action is less active. Cotoin has no influence on the peristaltic action of the intestine, nor has it any direct astringent effect; its antiseptic and anti-mycotic properties are very feeble; it does not prevent the decomposition of the urine, for example. It possesses a special action on the intestinal epithelium, stimulating its nutrition by its power of causing active dilatation of the abdominal vessels. When the function of the epithelium is disturbed, absorption is impeded, and food, &c., remains in the intestine only to be expelled by diarrhœa. In intestinal catarrh epithelium is thrown off in great quantity; the denuded mucous membrane allows matter from the blood to pass as through a filter. Cotoin does not cure all cases of diarrhœa, and is clearly not always indicated; but if the rationale of its action be borne in mind, and it be only given in suitable cases, it is a most valuable remedy in the treatment of diarrhœa.

1343. *Galassi on a Simple and Efficacious Method for the Cure of Obstinate Intermittent Fevers with the Preparations of Bark.*—Dr. Galassi (*Bollett. della Reale Accad. di Med. di Roma*, 1882) recognises the great efficacy of the preparations of bark in the many diverse forms of malarial intermittent fevers, and especially in the pernicious forms; but often, although the febrile accesses cease, relapses, with intervals more or less long, continue to recur sometimes for one or more years. In these cases, he administered quinine in small doses in the intervals of these attacks, but without good results. He then had recourse to the method, first recommended by Bretonneau and afterwards modified by Trousseau, of large doses, sufficient to suppress the febrile attacks, repeated with a certain regularity in the intervals; but with the same want of success. He then resolved to subject these methods to a fresh examination, and recognised that, if on the one hand they rested on the indisputable fact that the attacks of true miasmatic intermittent fevers are suppressed by a certain dose of quinine administered a little before the attack or in its decline, on the other hand they started from the mere supposition that the same remedy, given in the intervals after the paroxysms have ceased, is able to prevent their return. Indeed, whatever may be the action of quinine, the condition of the organism in the febrile attacks cannot be the same as that of the organism after the cessation of the attacks. To solve the question, he decided to give only the dose necessary to suppress the attacks whenever they occurred, and saw that, after having done this two or three times, the attack became shorter and less severe, and in every case in which he tried this method he had the same result; he therefore ceased to give quinine in the intervals as a prophylactic. Dr. Graves, of Dublin, many years ago recommended this same method of giving quinine in intermittents. Dr. Galassi is convinced that quinine given in the intervals after the attacks have ceased is not only of no use as a prophylactic, but rather is an impediment to the complete cure of the disease, and therefore harmful. He has seen in some cases paralysis of the heart follow the continued and inopportune use of the salts of quinine, and in others, chiefly in old people, vesical catarrh. He notices, however, that in following the simple method of Graves it is very important not to permit the development of several consecutive paroxysms, and that a marked impression must be made before the onset of the cold season, in which the curative action of quinine is much diminished.

1344. *Diani on Trichlorated Phenol.*—The preparation of trichlorated phenol, which results from the mixture of phenic acid with chloride of lime, is a powerful disinfecting agent—Diani says fifteen times more energetic than phenol; it is more active than permanganate of potash, chloride of lime, thymol, salicylate of soda, bromic acid, &c.; it is not an irritant. The salts which are formed from the combination of a base with trichlorated phenol, have the same antiseptic properties. The trichlorophenate of soda has the advantage of being inodorous.

G. D'Arcy Adams, M.D.

1345. *Eberman on Ferruginous Koumiss.*—According to the author's experience (*Mediz. Vestnik*, No. 22, 1882), anæmic patients, especially those with tendency to hæmorrhage, rapidly recover their health from the use of ferruginous koumiss. This is prepared by daily adding ordinary doses of lactate of iron to two or three bottles of common koumiss. The iron salt easily dissolves, without changing the taste of the koumiss. This preparation is very well borne, even by patients who cannot take iron administered in pills, powders, &c.

V. Idelson, M.D.

1346. *Albrecht on the Inhalation of Oxygen in Tuberculosis.*—Dr. Albrecht of Neuchâtel, lecturer on diseases of children in the University of Berne, communicates to the *Deutsche Med. Wochensch.*, July 18, the results of his experiments with the inhalation of pure oxygen in tuberculosis. He has found that, during the inhalation, no other treatment being employed, and no alteration in diet being made, the patients cease to lose weight, and in some cases even gain. Those patients were chosen for the experiment in whom the bacillus of Koch had been found, and Dr. Albrecht conducted the weighing himself in his own consulting room. He also made experiments on animals; and, after inoculating two sets, he found that those not treated

by inhalation died in four months, while those which had inhaled oxygen were still alive after six months. He hopes that further investigations may be made in the matter by other observers.

1347. *Extractum Piscidiæ.*—The extractum piscidiæ, a new remedy, belonging to the *Leguminosæ*, and known for some time in America as a hypnotic, has been tried in the Julius hospital with good effect (*Wien. Med. Blätter*, July 19). It has been found of great service in phthisis, causing a diminution of night-sweating and also of cough, without any unpleasant accompanying symptoms. The effect on the sweating was still more marked when atropine was given in conjunction with it, and only after some weeks were the pupils markedly affected. The extract is prepared by macerating 100 parts of the cortex of the root in 1,000 parts of dilute spirit for eight days, then filtering and drying to a powder, of which 0·25 to 0·5 gramme ($3\frac{3}{4}$ to $7\frac{1}{2}$ grains) is given for a dose.

1348. *Von Ziemssen on Distension of the Large Intestine with Carbonic Acid Gas.*—Professor von Ziemssen employs distension of the large intestine by carbonic acid gas, as a means both of diagnosis and of treatment (*Wien. Med. Blatter*, July 19). The gas is generated by passing into the intestine, through a tube about six inches long, about 20 grammes (300 grains) of bicarbonate of soda and 18 grammes (270 grains) of tartaric acid, which is sufficient to produce 5 litres of gas. The distension serves to indicate the form and position of the intestine, with its relations to neighbouring organs and the condition of its valves. Therapeutically, it is useful to excite peristaltic action, when a somewhat smaller amount may be used, and for relieving malposition and obstruction. It is more efficient and less harmful than distension by means of water or other fluid; and, although the breaking down of adhesions may cause pain, inflammation does not follow, and the only cases in which it is contra-indicated are enteric fever and intestinal tuberculosis.

1349. *Fraentzel on Hydriodate of Hyoscin in Phthisis.*—Dr. Fraentzel recommends (*Wiener Med. Blätter*, July 5) hydriodate of hyoscin in the treatment of the night-sweating of phthisis, in subcutaneous doses of half a milligramme ($\frac{1}{130}$ gr.), or in pill, beginning with the same dose. He does not find it so universally beneficial as atropine, and it sooner exhibits a narcotic action; but he has seen good results from it in cases where atropine has proved useless, or has failed to act after being in use for some time.

1350. *Lindner on Arsenic in Phthisis.*—Dr. Lindner, of Ludwigslust, writes to the *Deutsche Med. Wochensch.* of Aug. 22, giving some of his experiences with regard to arsenic in the treatment of phthisis. He confirms what was written by Herr Kempner in a previous number of the paper, and emphasises the improvement in the subjective symptoms. He has tried the drug in tuberculous affections of other organs, such as the bones and joints, but has not found any benefit to result, unless a slight increase of appetite might be attributed to the treatment.

1351. *Phosphate of Codein.*—The *Wiener Med. Blätter* for Aug. 16 contains the mention of a new drug, the phosphate of codein, which has been prepared by Merck, of Darmstadt, under the directions of Professor Hegar, of Freiburg. It is intended for hypodermic injection, for which neither the sulphate nor the chlorate are suitable, being nearly insoluble in water. The new salt is soluble in four parts of water, and contains 70 per cent. of codein. It crystallises in four-sided columns, and is similar to morphia in action, with the advantage of having less tendency to excite toxic symptoms. It is peculiarly suitable for sensitive patients.

ALICE KER, M.D.

1352. *Duboué on Ergot in Enteric Fever.*—Dr. Duboué, of Pau, in an essay recently published (Paris, G. Masson, 1883), points out that the prominent symptom in enteric fever is enfeeblement of the muscular tissues. This enfeeblement is present in greater or less degree from the very commencement of the fever, and increases with the progress of the disease. It affects the muscles of the limbs, giving rise to the lassitude which is so marked a feature of this fever. It affects also the muscular fibres of the cardio-vascular system, and in this fact lies its great importance. The heart becomes enfeebled, and the blood-current becomes retarded; and hence arises congestion of the various vital organs with its various more or less serious consequences—imperfect oxygenation of the blood, defective nutritive power, and the like. This being so, the main indication in the treatment of enteric fever consists, according to the author, in combating the muscular enfeeblement and the consequent retardation of the blood-current. The other important indication, viz., the prevention of nutritive disorders, can only be attained by giving attention primarily to the cardio-vascular debility. For the fulfilment of this primary indication various therapeutic agents are useful, viz., the external or internal application of cold water, quinine, creasote, carbolic acid, the preparations of salicylic acid, ergot, &c., all of which act either directly or indirectly as excito-motors. While all of these agents enumerated are valuable for the end in view, the most valuable of all is ergot. Dr. Duboué has given this drug an extended trial, and the results he has attained have satisfied him of its extreme value. He has administered it with the happiest results in cases of enteric fever of the greatest gravity—in some even where the patient seemed *in extremis*. He believes even that this remedy may cut short the fever in its prodromal stage. Dr. Duboué insists on the necessity of the ergot being of good quality. If the drug be bad, as it too often is, it may give rise to sickness and other untoward symptoms; but if it be good no such symptoms occur, and the author has found that patients suffering from enteric fever as a rule show a remarkable tolerance of the pure drug. The mean dose used has been from 1 gramme and 50 centigrammes to 3 grammes (about 23 grains to 46 grains) daily for an adult, and from 40 centigrammes to 1 gramme (about 6 grains to $15\frac{1}{2}$ grains) for children between 6 and 12. The dose must, however, be varied according to the circumstances of each case. The administration of the drug should, according to the advice of the author, be continued until convalescence has been well established. D. MANSON FRASER, M.D.

1353. *Althaus on the Risks of 'Massage.'*—Dr. Althaus, in the *Brit. Med. Jour.*, June 1883, p. 1223, says that it is now time to cry 'hands off!' with regard to the indiscriminate manner in which the 'Weir-Mitchell treatment' more especially is being applied to all sorts of cerebral and spinal cases. Many cases which would be benefited by rest are being treated by means of massage and exercises, so that more harm than good is done to the patient. At page 1307 Dr. Playfair writes to defend himself from being included amongst those who carry on

the 'massage' treatment in an indiscriminate manner, and points out that 'massage' is only a part, and by no means the most important part, of true treatment, the results of which, in well selected cases, are so remarkable, that it is not surprising that it should run the risk of being at times injudiciously and indiscriminately applied.

1354. *Fothergill on Stewed Fruit for the Gouty and Dyspeptic.*—Dr. Milner Fothergill, in the *Lancet*, July 1883, p. 7, recommends the use of stewed fruits in many instances of gout and dyspepsia. Sugar is undoubtedly objectionable to many, but it is by no means necessary to add sugar to stewed fruit; if the acidity be neutralised by an alkali, little or no sugar is required. Thrifty housewives have long been familiar with the fact, that the addition of a small quantity of the bicarbonate of soda to stewed fruit reduces the acidity, so as to save the necessity for much sugar. If about as much bicarbonate of potash as will lie on a shilling be added to each pound of fruit, it will be found sufficient to neutralise the acidity, and to bring out the natural sweetness. Milk puddings and stewed fruit are excellent for the dyspeptic, the bilious, and the gouty.

1355. *Paterson on Sanitas Oil in Psoriasis.*—Mr. Paterson, in the *Lancet*, July 1883, p. 45, recommends the trial of sanitas oil in chronic cases of psoriasis. The mode of application adopted was in the form of an ointment composed of vaseline, oxide of zinc, and sanitas oil. Mr. Paterson used it in one case only, but wishes other members of the profession to give it a trial.

1356. *Thorowgood on Doses.*—Dr. Thorowgood, in the *Med. Times and Gaz.*, July 1883, p. 725, communicates an article 'on Doses,' and refers to a report lately published by Dr. A. A. Smith, of Bellevue Hospital, on medicinal doses. The author says that the pharmacopœial dose is in many instances too large; for instance, the dose of tincture of aconite is given as from 5 to 15 minims, but the best plan in commencing inflammations is to give one or two minims every two hours. In using arsenic also, Dr. Thorowgood never gives more than three minims of Fowler's solution, or of liquor sodæ arseniatis, three times a day. Small doses of strychnia (one-fiftieth of a grain) are very useful in promoting the restoration of exhausted nerve-function, while larger doses add to the irritation, and eventually increase the exhaustion. Tincture of nux vomica, taken in doses of one or two minims, fasting, every morning, appears to be useful in the cure of chronic constipation.

1357. *Atkinson on the Treatment of Ulcer of the Stomach.*—Dr. Atkinson, in the *Practitioner*, July 1883, recommends—in cases of chronic gastric ulcer, when the patient is reduced to a weak state by constant vomiting and inability to assimilate nourishment—the following mode of treatment. There should be perfect rest in bed, and, to begin, a teaspoonful of Brand's liquid essence of beef should be given every four hours; a wineglassful of milk and lime-water, in equal proportions, should be taken frequently; and the body is to be rubbed with olive-oil every morning and evening. The beef-essence and milk can be gradually increased, and, as the pain subsides, sponge-cakes, bread, barley-water, and arrowroot, may be allowed, so as by slow degrees to return to ordinary diet. Stimulants of all kinds are to be withheld. The following mixture is also recommended. Eight grains of tartrate of iron, 15 minims of tincture of conium, 15 minims of tincture of calumba, 15 minims of glycerine, in water, daily. No aperients are allowed. After a time, the mixture may be replaced by 15 minims of Bravais' dialysed iron three times a day.

1358. *Stewart on Cascara Sagrada in Adynamic Constipation.*—Dr. Stewart, in the *Detroit Lancet*, April 1883, gives an able article on adynamia. He first treats of vital energy, showing what it is; secondly, he shows how it may be lost; thirdly, he describes some of the conditions brought about by a want of it, such as dyspepsia, diarrhœa, constipation, anæmia; and fourth, the treatment of adynamia by some of the more recent additions to the materia medica. One of the chief agents that Dr. Stewart advises in cases of adynamic constipation is cascara sagrada, the bark of rhamnus purshiana. It was introduced by Dr. Bundy, of California, but its present extensive use is due to the enterprise of Messrs. Parke, Davis, & Co., of Detroit, Michigan. This article of Dr. Stewart's would be read with advantage in connection with Mr. Horne's remarks on cascara that occur in the London Medical Record, p. 198. Richard Neale, M.D.

1359. *Paul on the Use of Lobelia Inflata.*—At a recent meeting of the Paris Therapeutical Society (*Rev. de Thérap.*), M. C. Paul read a report which had been made on M. Fournier's memoir on the therapeutic properties of lobelia. In asthma, its use is less successful than that of datura; but patients suffering from cardiac dyspnœa resulting from dilatation or mitral lesions find great relief from it; also phthisical patients who have reached the third stage. M. C. Paul, in cases of bronchial catarrh, prescribes from thirty to forty drops of tincture of lobelia inflata and fifty centigrammes ($7\frac{1}{2}$ grains) of iodide of potassium.

1360. *Créquy on Preparations of Aconite.*—M. Créquy, at a meeting of the Paris Therapeutical Society (*Rev. de Thérap.*), read a letter from M. Oulmont in which he mentioned that, in 1877, he pointed out that the fourth part of a milligramme ($\frac{1}{250}$ of a grain) of nitrate of aconitine is sometimes a poisonous dose; that the action of aconite depends on the origin of the root from which it is prepared. Aconite from the Vosges is much less energetic than that of Dauphiny. The tincture is sometimes innocuous, and at others eight or twelve drops are sufficient to kill a large dog. Aconite must evidently be considered as a very variable preparation (especially aconitine) and should be prescribed with great care. M. Constantin Paul is of opinion that a dose ought never to exceed twenty drops of the tincture. W. Vignal.

1361. *Calleza on Salicylate of Soda in Diarrhœa.*—In an article (*Lyon Méd.*, May 20) on the classification of the various forms of diarrhœa, and on the indications for the employment of salicylate of soda in this affection, Dr. Calleza concludes as follows. 1. The products of the putrefaction of the contents of the intestinal tube are the sole cause not only of a number of varieties of idiopathic diarrhœa, but also of many forms of secondary diarrhœa, in which the pre-existing disease has engendered a predisposition to decomposition. 2. Salicylate of soda is the most efficacious agent for preventing putrefaction in the intestinal tract, without interfering with the normal digestive processes. It should always be employed when the stools have a putrid odour, especially if this character have been noted from the commencement. 3. Two or three doses, of fifteen grains each daily, are sufficient for the speedy cure of strictly idiopathic

diarrhœa. 4. In the secondary forms of the disease (which are far less common) a trial may be made of the salicylate, rather as a prophylactic measure than with the hope of any marked therapeutic effect. 5. In syphilitic and phthisical diarrhœa, in that accompanying visceral abscess, especially of the liver, and in dysentery, salicylate of soda has produced the best results.

1362. *Desguin on Glycerine in Skin-Diseases.*—M. Desguin, of Antwerp (*Philadelphia Med. and Surg. Reporter*) has given glycerine internally in certain forms of skin-disease with, it is said, marked success, especially in acne punctata and the furuncular diathesis. He commences with four drachms daily, and gradually increases the dose. He states that the secretion of the cutaneous glands, which is thick and irritating in these diseases, becomes more liquid, and cutaneous irritation is notably lessened. During convalescence from scarlet fever, he believes that it facilitates desquamation.

1363. *Castor-Oil and Glycerine.*—A mixture which is of an agreeable flavour and in which the nauseous smell of the oil is efficiently disguised, can be made thus (*New York Med. Record*) :—R Olei ricini ʒj., glycerini ʒj., tincturæ aurantii ɱ xx., tincturæ senegæ ɱ v., aquæ cinnamomi q. s.. ad ʒ ss. This forms a beautiful emulsion, is easily taken, even by children, and, if administered at bedtime, will produce a gentle motion the following morning.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1364. Wyder, Th.—The Condition of the Uterine Mucous Membrane during Menstruation. (*Zeitschrift für Gebirtshilfe und Gynäkologie*, 1883, Band ix., Heft 1.)

1365. Agathonoff. — On Hystero-Trachelorrhaphy. (*Annales de Gynécologie*, July, 1883.)

1366. Guéniot.—Obstruction of the Uterus by a Partition. (*Jour. des Sages Femmes*, Sept. 16, 1883.)

1367. Lombard, F. H.—On Puerperal Fever. (*Boston Med. and Surg. Jour.*)

1368. Simpson, A. R.—Superinvolution of the Uterus. (*Edinburgh Med. Jour.*, Vol. xxviii., No. 11.)

1369. De Zouche, Isaiah.—Notes on a Case of Double Oöphorectomy.

1370. Schauta.—Rupture of an Ovarian Cyst in two Consecutive Pregnancies. (*Wiener Med. Blätter*, No. 29, 1882.)

1371. Consentino, G.—On Scraping of the P'acental Remains in Abortion. (*Annali di Ostet., Ginecol., e Pediatria*, and *Annali Univ. di Med.*, July 1883.)

1372. Fasola.—On Rigors following Intra-Uterine Irrigation. (*Annali di Ostet., Ginecol., e Pediatria.*, May 1883.)

1373. Mangiagalli, L.—A Probable Revival in the Field of Operative Obstetrics. (*Ibid.*, Jan. 1883.)

1374. Cuzzi.—The Duration of the Menstrual Hæmorrhage in regard to the Development of the Fœtus at Term and to Multiple Pregnancy. (*Rivista Clinica*, and *Annali Univ. di Med.*, July 1883.)

1375. Blanc y Renet.—On Pregnancy as an Etiological, Hygienic, and Therapeutic Agent in Woman. (*Gaceta Med. Catalana.*)

1376. Donitz.—A Case of Tubal Pregnancy. (*Berliner Klin. Wochensch.*, June 18.)

1377. Breus.—Rupture of the Uterus. (*Wiener. Med. Blätter*, June 14.)

1378. Fränkel.—Displaced Ovaries. (*Deutsche Med. Wochensch.*, July 25.)

1379. Rothe.—A Self-retaining Speculum. (*Deutsche Med. Wochensch.*, June 20.)

1380. Spondly.—Removal of the Placenta in Abortion. (*Zeitschr. für Gebirtsh. und Gynäkol.*, and *Deutsche Med. Wochensch.*, Aug. 22.)

1381. Heyder.—Transfusion of Solution of Chloride of Sodium in Post Partum Hæmorrhage. (*Centralbl. für Gynäk.*, and *Wien. Med. Blatter*, June 28.)

1382. Fürst, C.—The Treatment of Puerperal Eclampsia. (*Wien. Med. Blätter*, July 28.)

1383. Hartigan.—The Oxytocic Action of Quinine. (*Brit. Med. Jour.*, June, p. 1064.)

Art. 1364. *Wyder on the Condition of the Uterine Mucous Membrane during Menstruation.* — Dr. Wyder, after referring to the researches of Moericke and De Sinéty on the mucous membrane of the uterus, concludes as follows. 1. During menstruation, part of the superficial layer of the mucous membrane disintegrates, whilst the other part remains. This throwing-off of the superficial layer varies in amount at different periods, being at one time complete, at another time very partial. The shed portions can be seen in part well preserved, in part broken up into decomposed detritus. In some cases, small tags of mucous membrane are found in the uterine mucus just as in dysmenorrhœa; but, being small, they do not occasion any dysmenorrhœal symptoms. 2. The throwing-off of the superficial layer of the mucous membrane is a result of the menstrual bleeding, and not a consequence of primary fatty degeneration. The latter is more probably a result of the raising and disintegration of the mucous membrane. 3. The superficial and middle layers of the portion of the mucous membrane which is not thrown off contain their small-celled characters and have no resemblance to the decidua of pregnancy. 4. The degeneration of the superficial epithelium proceeds as much from the glandular, as from the larger or smaller remaining portions of superficial epithelium.

1365. *Agathonoff on Hystero-Trachelorrhaphy.*—Dr. Agathonoff, from observation of fourteen cases of hystero-trachelorrhaphy in the service of Sloviansky, at St. Petersburg, is of opinion that the long preparatory treatment adopted by Emmet is unnecessary. The full benefits from the operation cannot be obtained immediately after the operation, because time is required to cure the anæmia and consecutive nervous symptoms. He states that the cures of the troubles which affect patients with lacerations of the cervix, is obtained almost wholly by the re-union of the lips of the cervix. A long preparatory treatment is only necessary when cystic degeneration of the mucous glands, with intense metritis, is present. The operation, however, carefully performed under such conditions, will fail to be followed by perfect union of the lips. Emmet's operation is the only method by which a cure can be effected in lacerations of the cervix. No other means can replace it with the same success.

1366. *Guéniot on Obstruction of the Uterus by a Partition.*—M. Guéniot was called to a woman who had been in labour for twenty-four hours, without delivery taking place. On examination, he found the cervix largely dilated, but at the same time he perceived that the uterine cavity was closed by a kind of partition (cloison), which he incised. He was nevertheless unable to save the woman, who was exhausted by abundant hæmorrhages and prolonged labour. The necropsy displayed the exist-

ence of a very thick partition, placed transversely across the lower zone of the uterus. The fœtus was putrefied.

1367. *Lombard on Puerperal Fever in Lying-in Hospitals.*—In the correspondence of the *Boston Surg. and Med. Jour.*, Dr. Lombard states that the parts exposed to absorption are the internal surface of the uterus, which, as proved by Friedländer's investigations, is during labour deprived of its epithelium, and for at least three weeks after delivery presents a raw wounded surface; further, the cervical and vaginal walls, the external genitals, and the perinæum, whenever the surfaces of these are abraded. In a vast majority of cases the infection is brought from without by the examining finger, catheter, sponge, bed-linen, impregnated with organic material from any source whatsoever in a state of decomposition. Self-infection may take place through the absorption of portions of the placenta or membranes, of coagula, or of lochial discharges, which, retained in utero, have undergone decomposition; also through soft parts, which from pressure during prolonged or instrumental labour have become necrosed. No stronger proof can be brought in support of the correctness of this view of the etiology of puerperal fever, than the marked decrease in the mortality of lying-in women which is followed wherever it has been accepted, and appropriate prophylactic measures against the dreaded disease have been strenuously carried out. During Dr. Lombard's residence in the lying-in hospitals of Vienna, Dresden, and Prague, he has had opportunities of witnessing the effects of the antiseptic system. In 1865 carbolic acid was introduced, and from that time to the present antiseptic precautions have been observed, with constantly increasing vigilance and with correspondingly gratifying results. The mortality in the Vienna Lying-in Hospital from puerperal fever has thus been reduced to 0·75 per cent. In the Prague Lying-in Hospital the mortality has been reduced from an average of 6·67 per cent. to 0·24 per cent. The writer concludes thus. In properly constructed lying-in hospitals, where appropriate precautions are strenuously observed, the mortality can be kept within as favourable limits as in private practice; and further, such hospitals can be thrown open for the purposes of medical instruction without prejudice to the patients. The puerperal fever of private practice is identical with that met with in hospitals, and its occurrence and dissemination are only to be avoided by the observance of the same precautions. Finally, whatever views may be held upon the subject of antiseptics in general, and whether such results as the foregoing be attributed to the germ-destroying properties of carbolic acid and kindred substances, or merely to the increased care and cleanliness which these bring in their train, the fact remains that under no other system have such satisfactory results been obtained, and this of itself should be sufficient reason for continuing to employ the same until something better is devised. [The above results coincide with those obtained in the British Lying-in Hospital in London, since the introduction of antiseptic precautions by Dr. Fancourt Barnes.—*Ref.*]

1368. *Simpson on Superinvolution of the Uterus.*—Professor Simpson calls attention to a condition of some clinical importance, which is not very uncommon. He states that there is seen an atrophic process, similar to that which sets in at the menopause, which affects the uterus long before the ordinary climacteric period. This is superinvolution. The condition has been designated 'hypotrophy' by Chiarlioni, while Frommel has called it 'puerperal atrophy of the uterus.' Simpson, however, retains the term 'superinvolution' as being more scientifically accurate. The variety of undersized uterus thus designated occurs—1. In wasting diseases, as phthisis; 2. In some cases of paraplegia; 3. After removal of the ovaries; 4. Where there have been pelvic inflammations; 5. In diseased conditions of the uterus itself. The most common symptom of superinvolution is amenorrhœa. Sometimes sterility prompts the patient to seek advice. The diagnosis is made by the usual gynæcological investigation, and especially by bimanual examination—not merely abdomino-vaginal, but this combined with rectal and sometimes vaginal exploration. In the superinvoluted uterus, the walls are not only very thin; they are unusually soft and lacerable, so that the sound is easily pushed through. The treatment is general and local. The general treatment is based upon regard to the constitutional condition and the circumstances under which the superinvolution has been produced. Any drain on the system must be checked, and any constitutional weakness must be combated. The anæmic female must be treated with hæmatinics, and those who have mental and nervous derangements with appropriate remedies and remedial measures. If there remain any trace of local inflammatory action, this must be met by hot vaginal douches and counter-irritants; while the patient is made to use tonics of various kinds internally. The local treatment consists in stimulating the uterus, if possible, to redevelopment. Such an attempt is useless where the patient is phthisical or the ovaries are gone. But in some the occasional introduction of a sound or of a dilating bougie has been found useful in re-exciting the menstrual flow, when the patient has taken iron and other emmenagogues for a time, with the effect perhaps of improving the general condition, but not of procuring the uterine discharge. In yet others, the wearing of an intra-uterine stem promotes the development of the uterus. In several instances, Dr. Simpson has witnessed the growth of a superinvoluted uterus whilst the patient was wearing the stem-pessary, made partly of zinc and partly of copper. In some, it brought about the restoration of the menstrual flow; and in one patient, in whom the superinvoluted uterus was little over two inches, the wearing of the galvanic pessary was followed by such a regeneration of the organ that its functional activity was fully restored, and she subsequently gave birth to a living child.

1369. *De Zouche on a Case of Double Oöphorectomy.*—Dr. de Zouche completes the report on a case of double oöphorectomy which he performed two years ago. (See LONDON MEDICAL RECORD, October 1881, p. 424.) The patient did not show marked improvement until some months after the operation. The pain and hyperæsthesia gradually diminished, the mental depression and thoughts of suicide disappeared, and six months ago she said she was perfectly well. For many months, she has been able to take an active part in the work of the dairy on a farm where she is residing. She milks seven cows morning and evening, makes butter and cheese, washes clothes, &c., and walks to town, a couple of miles, and back again uphill. With regard to menstruation, Dr. de Zouche could never place much reliance on her statements. She said that there

was none for five months, that then it was regular for a few times, and afterwards became irregular as to quantity and time of appearance; but her best friend, the wife of the owner of the farm, tells him that the patient has never menstruated since the operation. Dr. Goodell, of Philadelphia, says these patients frequently state that the menstrual discharge is regular when it is absent, lest any slur should be cast on their womanhood. Within the last couple of years, oöphorectomy has been so frequently performed, and with such success, that it may now be said to take its regular place among the received operations in surgery.

FANCOURT BARNES, M.D.

1370. *Schauta on Rupture of an Ovarian Cyst in two Consecutive Pregnancies.*—In an article containing a case of this kind, the author points out how advanced cystic disease of both ovaries has been found to co-exist with pregnancy, proving that a very small trace of normal parenchyma at the root of an ovarian tumour may still allow successful impregnation. Litzmann has shown by statistical tables that the prognosis of cystic ovarian disease, when discovered in a pregnant woman, is very serious, but this does not accord with the experience of Olshausen or of the author. [British operators look with still less dread on this complication, and do not always consider it justifiable to defer operation till after delivery, ovariotomy during pregnancy being a fairly successful operation, not necessarily followed by abortion.—*Rep.*] In January 1874, the patient on whose case Professor Schauta's paper is founded, a girl aged 19, was examined by Professor Späth, who discovered a tumour in the hypogastrium, which appeared to be a cystic growth of the right ovary, of the size of a man's fist. It had been observed by the patient for three months. On September 2, 1876, she was seen a second time, when in the ninth month of pregnancy. An elastic tumour, of the size of a child's head, was detected pressing down into the pelvic cavity. On September 30, the patient entered a lying-in hospital. She stated that very early on the same day something gave way inside her, and a great quantity of water gushed out of the vagina. A female child was born, and, on careful bimanual palpation of the pelvic organs, something that felt like a collapsed cyst could be detected. The author believed that its contents must have emptied through the Fallopian tube. After the escape of the fluid, the obstetric attendant found that the fœtal membranes were still intact, so that no liquor amnii had escaped. By October 9, the cyst was once more as large as a fœtal head. On January 21, 1878, the patient came under the care of the author. She was again pregnant, and the ovarian cyst was much larger, pressing into the pelvis. On February 2, labour-pains commenced. The cyst could plainly be felt, but a few hours later it could not be detected on the most careful examination. On the morning of February 3, the fœtal membranes ruptured, and the liquor amnii escaped. The patient was safely delivered; no cyst could be felt directly after the expulsion of the fœtus, but on the tenth day it was again discovered, and from that date it rapidly began to fill and to present, on palpation, all the characters of an ovarian cyst. On the second occasion, the contents must have escaped into the peritoneal cavity. [It is to be regretted that no subsequent history is recorded.—*Rep.*]

ALBAN DORAN.

1371. *Consentino on Scraping of the Placental Remains in Abortion.*—The importance which the retained fœtal appendages, more or less adherent to the internal surface of the uterus in abortion, have in the genesis of consecutive hæmorrhage and septicæmia, is well known. Active intervention is now recognised as necessary. The author (*Annali di Ostetricia, Ginecol., e Pediatria*, and *Annali Univ. di Med.*) says that in every abortion all or part of the decidual membrane remains adherent, and may give rise to repeated and prolonged metrorrhagia. In the process of exfoliation of this membrane, profuse hæmorrhages may occur. Grave, acute, and chronic diseases, or a series of abortions, arise from the decomposition and slow expulsion of the placental remains. The natural process of elimination of these remains is united with many dangers if art do not intervene. Expectant and symptomatic treatment is insufficient to promote the expulsion of the body remaining in the uterus, and hence is not free from danger. As repeated metrorrhagia occurs, the cavity of the uterus must be freed from all remains as soon as possible; the best means for this end is scraping the uterine wall with the spoon. This method ought to be carried out whenever the placenta is retained, and does no more harm than the common endo-uterine injection.

1372. *Fasola on Rigors following Intra-uterine Irrigation.*—The author (*Annali di Ostetricia, Ginecol., e Pediatria*, May 1883) examines one of the accidents of intra-uterine irrigation in the puerperal state—rigors. This accident is not rare, since it was observed 24 times in 200 in which irrigation was used in the clinic of Turin, in the scholastic year 1881-82. Of these observations he reports eight, those, that is, in which the appearance of the rigor after irrigation was marked and characteristic. He draws the following conclusions. 1. Disinfectant intra-uterine irrigations practised in the puerperal processes of septic endometritis, with offensive lochia, &c., are frequently followed by rigors. 2. The rigor is so much the less intense as the offensiveness of the lochia is less, and the earlier the local treatment is begun; and in these cases it frequently only amounts to a sense of chilliness rather than to a decided rigor. 3. It generally appears after the first irrigations, often after the evening irrigation; it is not always repeated. 4. The rigor is followed by elevation of temperature; but this is of short duration, and is followed by a fall, sometimes great in slight cases, when the temperature did not exceed 38°·5 Cent. (101°·3 Fahr.) before the irrigation, not uncommonly to the normal. 5. The rigor and the rise of temperature never gave rise to further alarming symptoms. He attributes the rigor to the accidental absorption of septic materials, favoured or promoted by the mechanical action of the irrigation, removal of thrombi, laceration of vessels, &c. He does not consider that it in any way is to be considered as a reason why endo-uterine irrigation should be discontinued.

1373. *Mangiagalli on a Probable Revival in the Field of Operative Obstetrics.*—This formed the subject of the introductory address to the course of Obstetrics for the year 1882-83 in the University of Sassari. (*Annali di Ostetricia, Ginecologia, e Pediatria*, Jan. 1883.) Symphysiotomy is the operation spoken of, and Prof. Mangiagalli thinks that it will again come into vogue, since it has a well-defined indication, and with modern antiseptic precautions it

deserves a new clinical trial. Old statistics are not of much value, and cannot be used to form a judgment of the value of the operation, which was performed when the degree of pelvic stenosis was so great that symphysiotomy could not give the results expected of it, while on the other hand it was frequently performedwithout sufficient clinical discretion, in cases in which there was really no occasion for it. The recent cases of the Neapolitan school, in which the operators confined themselves to the limits imposed by rational indications, gave results which seriously call for the attention of those obstetricians not held in bondage by preconceived ideas. The author would fix the limit for symphysiotomy between 67 and 70 millimètres. With strict antiseptic precautions, he expects better results than those hitherto obtained, though the results of the more recent operations of the Neapolitan school are very encouraging. From Jan. 1, 1868, to Sept. 26, 1872, 24 symphysiotomies were performed; 6 mothers died, which represent a maternal mortality of 25 per cent.; while from Oct. 1, 1872, to Dec. 5, 1880, in 22 symphysiotomies only 3 mothers died, or a maternal mortality of 13·63 per cent. The mortality of the children was in the first series 20 per cent., in the second 17·39 per cent. Such results are more striking when one compares them with the results of other operations in pelvic stenosis. The clinical observations of the author, made on a vast scale in the Maternità of Milan, bring the conviction that within the limit stated our art is defective, and that to attempt the application of the forceps or version where one is beforehand certain of failure, trusting to an exceptional success, which too often the nature of things refuses us, or to subject the still living fœtus to craniotomy, sacrificing it to the mother, or to practise Cæsarean section, and thus often to sacrifice the mother to the child, does not bring us near that ideal perfection to which the aspirations of our art should tend. What the results obtained by all other operations in the field indicated of pelvic stenosis have been for a period of ten years the author shows, giving statistics. From Jan. 1873 to Nov. 1882, in the hospital of S. Catterina, 50 women at full time had pelvic stenosis, varying from 67 to 80 millimètres in the conjugate diameter; the mortality of the children was 81·78 per cent., and the mortality of the mothers 14·28 per cent., with an inclusive mortality of 48·05 per cent. He concludes with an eloquent appeal to obstetricians to remove symphysiotomy from the ostracism to which it is condemned, and to subject it to a fresh trial.

1374. *Cuzzi on the Duration of the Menstrual Hæmorrhage in relation to the Development of the Fœtus at Term, and to Multiple Pregnancy.*—The title of this work (*Rivista Clinica* and *Annali Univ. di Med.*, July 1883) clearly indicates its scope, and the author seeks to establish his conclusions on the basis of much statistical material collected in the clinics of Modena, Milan, and Turin. He was led to this research by the idea that by the amenorrhœa of pregnancy a so much greater quantity of maternal nourishment was retained for the benefit of the fœtus, as the sanguineous loss was greater in menstruation. Not being able to determine exactly the quantity lost at each period, he took its duration as a guide, which, considering the number of his observations, may be regarded as more or less equivalent. As to a longer duration of the menstrual hæmorrhage, a corresponding ovarian activity can be supposed; so also the hypothesis may be justified of a more easy rupture of more ovisacs, and hence a greater probability of multiple pregnancy. From the analysis of very numerous observations, Professor Cuzzi thinks himself justified in formulating the following conclusions. 1. The weight and length of the fœtus at term are in direct relation with the number of days which menstruation occupied. The longer the usual period of menstruation, the heavier and larger the fœtus. 2. There is a direct relation between multiple pregnancy and the duration of the menstrual period. That is, multiple pregnancy is most frequent in women in whom the period is long and the loss free.

1375. *Blanc y Renet on Pregnancy as an Etiological, Hygienic, and Therapeutic Agent in Women.*—In the *Gaceta Med. Catalana*, Dr. Blanc y Renet publishes an article on this subject. He sums up thus. 1. The reproductive organs of woman, by their conditions of movability and vascularity, are constantly influenced by position or attitude. 2. Any other but the normal angle of 54° to 60°, when standing, is dangerous. Hence it is dangerous to maintain the position for long without taking exercise. 3. The prolonged sitting position is also harmful; as is also reclining without taking exercise, since the pelvis is inclined at a bad angle. 4. To re-establish the equilibrium of the pelvic circulation which may have been disturbed during the day, at night the woman must be in the lateral position, or change from side to side; the bed ought to be flat and hard. 5. The misplacement of the pelvic organs, produced by an improper attitude, must be treated by another position, or by attitude in which the centre of gravity of the misplaced viscera inclines to the point opposite the misplacement. 6. The affections of the circulation of the female organs of reproduction (hyperæmia, varices, hæmorrhages, œdema, excessive secretion, catarrh, hyperæsthesia) which can be comprehended in the widest acceptation of hyperæmia, produced or not by upright or inclined positions, must be treated by the horizontal position with the pelvis elevated. This position he calls the antihyperæmic for the pelvic organs.

G. D'Arcy Adams, M.D.

1376. *Donitz on a Case of Tubal Pregnancy.*—Dr. Donitz, of Saga, Japan (*Berliner Klin. Wochensch.*, June 18), describes the following case. On Dec. 20, 1882, a woman came under his care. She had not borne children, and for sixteen months had not menstruated. She had lately felt, on the right side of the abdomen, a tumour in which she was sensible of movement. Five months previously she had experienced a profuse discharge of blood; after which, the swelling had somewhat decreased, but had become painful. The tumour was most distinct on the right side, extending as high as the umbilicus. A clear watery discharge from the vagina existed, containing yellowish flocculi or strands, which consisted of fat, cholesterine, crystals of fatty acids, and fragments of striped muscular fibres. A small quantity of milk was secreted in the breasts. A tubal pregnancy was diagnosed. The severe pain and the risk of perforation rendered the performance of an operation imperative, the successful result of which was rendered the more probable by the healthy appearance of the patient. An incision from the umbilicus to the pubes was followed by the protrusion of the tumour to the surface. The omentum was adherent anteriorly to the extent of two inches, but was easily separated by the hand; posteriorly, however, the adhesions were

firmer and connected with the right kidney. As it was being detached, the amnion was torn, and gave exit into the abdominal cavity to a sebaceous mass mixed with hair. As the tumour was now free, it could be brought forward, and the further escape of this material prevented. After the opening of the sac and removal of the fœtus, the tumour was readily raised. The broad ligament was stitched to the tube at three different points; and the tumour with the end of the tube and ovary was removed. Hæmorrhage from the omental vessels was arrested by the thermo-cautery; the parts were washed with a solution of carbolic acid, and the wound in the abdominal walls was closed. A drainage-tube was inserted in the lower angle of the wound; and the stitches were dressed with naphthalin. The peripheral end of the tube and the ovary were healthy. No trace of placenta was found. The fœtus appeared to be of about seven months. Recovery in this case was rapid. The author relates this case on account of the diagnostic value of the observation of muscular fibres in the vaginal discharge. Dr. Donitz adds that when the litter, on which the patient had been brought three miles, returned empty, it was amidst the cheers of a large crowd who had expected nothing less than that it would have to convey away a corpse. The natives firmly believed that the woman had a snake, or a devil, in her belly, which could only be cast out at the cost of her life. W. B. Kesteven, M.D.

1377. *Breuss on Rupture of the Uterus.*—Dr. Carl Breuss, assistant to Professor Braun, of Vienna, relates (*Wiener Med. Blätter*, June 14) a case of cured rupture of the uterus, which occurred in the hospital there. The patient was brought in to be confined of her fourth child, and gave a history of great suffering in previous labours, the presentation having always been either transverse or breech, and the placenta each time adherent. On account of hæmorrhage the membranes were ruptured, while the os was about the size of a crown-piece, and a presenting foot pulled down so as to plug the opening. No more bleeding followed, and the labour was brought to an end by extraction, in about twelve hours. In attempting to detach the placenta, an opening in the left cervical wall was discovered, through which the posterior surface of the uterus could be felt. The adhesion between the placenta and the uterine wall was so intimate that it could not be entirely removed; but convalescence was proceeding favourably, when a fresh attack of hæmorrhage on the fourth day proved fatal. The opening in the cervical wall had rounded and cicatriced edges, and was of such an appearance as to warrant the belief that it had occurred during a previous labour, probably the last one. A fresh rent, about one centimètre in length, involved the site of the placenta, and implicated a large vessel, the source of the fatal hæmorrhage. The opening led into a collapsed and empty cavity, between the folds of the broad ligament.

1378. *Fränkel on Displaced Ovaries.*—In the sitting of the Hamburg Society of Physicians on Nov. 28, 1882 (*Deutsche Med. Wochensch.*, July 25) Herr Fränkel showed two preparations of displaced ovaries. The first was from a woman, aged 37, who died of carcinoma of the axillary glands, where the right ovary was missing from the end of the Fallopian tube, and a cyst containing cholesterine and hair was found attached to the great omentum and the cœcum. The second was from a child a year old, who died of rachitis and bronchopneumonia. The left ovary was found free in the pouch of Douglas, no explanation of the occurrence being suggested by any of the appearances found.

1379. *Rothe on a Self-retaining Speculum.*—Dr. Rothe, of Altenburg, describes and figures (*Deutsche Med. Wochensch.*, June 20) a new self-retaining speculum which he has devised. It consists of a blade like a Sims' speculum, along the shaft of which works a stem carrying an oblong loop of wire which acts as a depressor, and which can be adjusted to any distance from the duck-bill by means of a screw. Dr. Rothe has obtained a clearer view of the cervix and vagina by means of this instrument unassisted, than with a Sims' speculum and depressor combined.

1380. *Spöndly on Removal of the Placenta in Abortion.*—Dr. Spöndly states to the *Zeitschr. für Gebürtshilfe und Gynäkologie* (*Deutsche Med. Wochensch.*, Aug. 22) his experience that it is best in cases of abortion to resort at once to extraction of the placenta in cases where it is not immediately expelled spontaneously. As the cervix becomes impervious to the finger in one or two hours after the birth of the fœtus, removal should be effected at once, under chloroform.

1381. *Heyder on Transfusion of Solution of Chloride of Sodium in Post Partum Hæmorrhage.*—The *Wien. Med. Blätter* of June 28 quotes from the *Centralbl. für Gynäkologie* another successful case of transfusion of chloride of sodium solution in *post partum* hæmorrhage, contributed to that paper by Dr. Heyder. The patient was a multipara, in her eighth pregnancy, from whom the adherent placenta was partially removed by the attending midwife, causing an amount of flooding which necessitated the calling in of Dr. Heyder three hours after the expulsion of the child. As the manual removal of the remainder of the placenta had only a momentary effect in restraining the hæmorrhage, transfusion was determined on, and 450 grammes (15 oz.) of the usual ·6 per cent. solution of chloride of sodium were injected into the median vein. The result was the immediate diminution in frequency and increase in strength of the pulse, and the restoring to consciousness of the patient, who remembered nothing subsequent to the partial removal of the placenta. The course of the convalescence was normal, with the exception of a perimetritis which appeared on the tenth day, and soon passed off.

1382. *Fürst on the Treatment of Puerperal Eclampsia.*—Dr. Camillo Fürst, assistant to Professor Braun, communicates to the *Wien. Med. Blatter* for July 26 some therapeutical notes from his obstetric clinic in Vienna. In the treatment of eclampsia the following rules are observed. 1. For the prevention of fresh attacks, chloral-hydrate is given in a dose of 2 grammes (30 grains) by the rectum immediately after each fit, and if the greater part be returned, it may be repeated to the extent of 10 to 12 grammes (150 to 180 grains) in twenty-four hours. 2. If fits occur during the birth, it must be terminated artificially. 3. If the birth be over or not yet begun, diaphoresis is induced by hot baths, beginning at 38° to 40° C. (100°·4 to 104° F.), and gradually raised by the addition of hot water to 42° or 45° C. (107°·6 to 113° F.). After half an hour of this bath, or sooner if much sweating of the face be induced, the patient is packed in warm flannels for two or three hours, from which she is freed gradually. This is repeated daily until the œdema disappears; and the treatment

has been specially useful in eclampsia occurring during pregnancy. ALICE KER, M.D.

1383. *Hartigan on the Oxytocic Action of Quinine.* Mr. Hartigan, in the *Brit. Med. Jour.*, June 1883, refers to an article by Dr. Macleod, of Shanghai, on the 'Problematic Oxytoxic Action of Quinine' in the *Journal* of February 24, and records that in three cases he had on several occasions to discontinue the use of quinine, because it brought on 'labour pains,' even in small doses of three to five grains. One case came under the author's notice, where abortion was produced by a dose of ten grains of quinine. This action of the drug is known to the Chinese, who take it for the purpose of producing abortion, following its use by copious draughts of tea. Quinine certainly in some cases increases the menstrual flow. [Many observers have written upon this point; and while some assert that quinine produces abortion, others deny it altogether, Dr. Macleod leaning to the view that the drug prevents abortion in some cases; and doubtless, in the reporter's opinion, formed after a very extensive experience in Java, the home of malaria, Dr. Macleod has very good grounds for holding his view, because it is the malarious fever, for which quinine is often given, that leads to abortion, and if this fever be checked by the timely use of the drug, such abortion is avoided, while, if given too late, the disease, and not the remedy, is the cause of the disaster.—Vide *Medical Digest*, sect. 401 : 6.—*Rep.*] RICHARD NEALE, M.D.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

RECENT PAPERS.

1384. WARDEN.—The Abrus Precatorius. (*Indian Med Gaz.*, Dec. 1882.)

1385. COPPOLA, F.—Ptomaines. (*Gazz. Chimica Ital.*, Vol. xii., p. 511; *Jour. of Chemical Society*, 1883, p. 522.)

1386. MASCHKA.—On Sulphate of Copper. (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 55.)

1387. ROTH.—On Aconite. (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 76.)

1388. KRATTER.—On Strychnine. (*Philadelphia Med. and Surg. Reporter*, 1882, p. 583.)

1389. MACREDY.—On Strychnine. (*Edinburgh Med. and Surg. Jour.*, 1883, p. 757.)

1390. KORNFELD.—Poisoning by Bromine. (*Friedreich's Blätter für Gerichtl. Med.*, 1883, p. 228.)

1391. BÄYER.—On Cervico-Vaginal Rents in their Forensic Aspects. (*Arch. für Gynäk.*, Band xxi., Heft 1.)

1392. UNGAR.—On Atelectasis. (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 12.)

1393. MCREDDIE.—Antidotes for Strychnine. (*Proceedings of N.-W. Provinces Branch of Brit. Med. Association*, 1883, p. 3.)

1394. GALIPPE. — Copper in the Cereals. (*Ann. d'Hygiène*, 1883, pp. 122, 279.)

1395. JESSOP, C. M.—Poisoning by Tartar Emetic. (*Brit. Med. Jour.*, July, p. 14.)

1396. BRUNTON.—Arsenical Poisoning by Wall-papers. (*Ibid.*, June, p. 1218.)

1397. MOSSO AND GUARESCHI.—Researches on the Substances Extracted from Animal Organs Fresh and in a state of Putrefaction. (*Atti della Reale Accad. delle Scienze di Torino*, 1882.)

1398. GIORGIERI, F.—Two Cases of Lathyrism observed in the Medical Clinic of the Royal University of Parma. (*Annali Univers. di Medicina*, April 1883.)

1399. GUARESCHI.—Localisation of Arsenic in the Organism in a Case of Poisoning. (*Rivista di Chimica Med. e Farm.*, Vol. i., p. 17.)

1400. BOHN. — Poisoning by Chlorate of Potash. (*Deutsche Med. Wochensch.*, Aug. 15.)

ART. 1384. *Warden on Abrus Precatorius.*—Professor C. J. H. Warden (*Indian Med. Gaz.*, Dec. 1882), has investigated the poisonous properties of the seeds of this, the rati plant, which is much used in India in the destruction of cattle. For this purpose the seeds, which are almost inert when introduced into the stomach, are pounded, moistened with a liquid, and shaped into needles—'suis'—and, when dry, forced beneath the skin of cattle. The 'Chamar,' or skinner caste, appear to be the only class who adopt this mode of poisoning, and their object is to obtain the skins. Unless suspicion be aroused, and the skin of the animal very carefully inspected, the minute puncture caused by the spike is likely to escape detection. The *abrus precatorius* belongs to the natural order leguminosæ, and is familiarly known as the Indian liquorice plant. The seeds are used as an external application in ophthalmia, and also for hæmorrhoids. When used subcutaneously, as in suis poisoning, there ensue considerable local tumefaction of the part to which the poison is applied, a lethargic condition of the animal, staggering gait, and death. Occasionally suis wounds have proved fatal in the human subject. Professor Warden has obtained from the rati seeds two principles—a proteid body having properties analogous to those of emulsion, and a leguminous matter like amygdalin. A temperature of 100° C. destroys the activity of the seeds, apparently by coagulating the proteid body, in the same way as boiling water, when added to a mixture of emulsion and amygdalin, prevents the formation of hydrocyanic acid, by coagulating the emulsion. The proteid and leguminous matter present in the rati seeds, when introduced beneath the tissues, probably give rise to certain products, the result of a quasi-fermentative action, inducing changes in the blood incompatible with life.

1385. *Coppola on Ptomaines.*—F. Coppola (*Gazz. Chim. Ital.*, vol. xii., p. 511; *Jour. of Chem. Society*, 1883, p. 522) has investigated the genesis of the cadaveric alkaloids. These bases were originally regarded by Selmi, and afterwards by Schwanert, as exclusively products of cadaveric putrefaction. Selmi, however, afterwards modified his opinion, and admitted that ptomaines might be produced during life by pathological alterations, and this was confirmed by Spica. Paterno and Spica, and also Gautier, subsequently showed that reactions similar to those exhibited by the ptomaines might be obtained from substances procured from normal blood, egg, albumen, normal urine, and other animal fluids. Coppola has made a series of experiments on the physiological action of bases extracted from the blood of a healthy dog; and he concludes that alkaloids extracted from healthy animal fluids, which have undergone no putrefactive alteration, may exhibit highly poisonous properties, and that the albuminoids are capable of undergoing changes giving rise to the formation of poisonous bases. It is even surmised that during the extraction of alkaloids by Dragendorff's process albuminoid substances may undergo transformations, giving rise to poisonous ptomaines.

1386. *Maschka on Sulphate of Copper.*—Professor Maschka (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 55) relates a fatal suicidal case of poisoning by blue vitriol. Death occurred in ten hours. Two-pennyworth of the poison was taken. The symptoms were vomiting, watery diarrhœa, cramps, and finally loss of consciousness. Some congestion, and a few ecchymosed patches, were noted on the mucous surface of the stomach.

1387. *Roth on Aconite.*—Dr. Emmanuel Roth communicates an interesting case of fatal poisoning by half a teaspoonful of tincture of aconite (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 76). Death occurred in two hours, consciousness remaining intact almost till the end of life.

1388. *Kratter on Strychnine.*—Dr. Kratter (*Philadelphia Med. and Surg. Reporter*, 1882, p. 583) has determined the manner in which strychnine is excreted from the body, and has ascertained that the alkaloid is not decomposed in the liver. Strychnine, no matter by what channel introduced into the body, is rapidly absorbed and excreted unaltered by the urine. The excretion begins within the first hour after the ingestion of the drug, and is ended within forty-eight hours, when the last trace disappears from the urine. An accumulative action he explains by the fact that a new irritant acts on the nerve-centres, the former irritation of which has not totally ceased, and equilibrium not having been re-established before another dose disturbs it anew.

1389. *Macredy on Strychnine.*—Mr. Macredy (*Edinburgh Med. and Surg. Jour.*, 1883, p. 757) reports an instructive case of poisoning by a grain and a half of strychnine, followed by two ounces of laudanum. Symptoms did not appear till after the lapse of eight hours. Four hours later, chloral was administered. In five hours from their accession, the symptoms had attained their maximum of intensity, and five hours after this they had entirely disappeared.

1390. *Kornfeld on Poisoning by Bromine.*—Dr. Kornfeld relates (*Friedrich's Blätter für Gerichtl. Med.*, 1883, p. 228) an interesting fatal case of the poisoning of a child, aged 1¾ years, by the inhalation of the vapour of bromine. The child died on the sixth day, after suffering from suppressed voice and respiratory troubles, followed by gastric disturbances, and finally various cerebral symptoms. At the necropsy the skin of the cheeks and neck, where the vapours had come into contact with the parts, had a yellow appearance, and a peculiar parchmenty-like feel. Bromine was detected on the skin, and also on the clothing of the child during life.

1391. *Bayer on Cervico-Vaginal Rents in their Forensic Aspects.*—Dr. G. Bäyer (*Arch. für Gynäk.*, Band xxi., Heft 1) draws attention to rents of the cervix uteri and vagina, without extension into the peritoneum, becoming of importance forensically. He adduces two cases in which such rents occurred: one in turning in a case of placenta prævia; the other as the result of a protracted first stage of labour.

1392. *Ungar on Atelectasis.*—Dr. Emil Ungar (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 12) asserts, as the results of his experiments, that both lungs of the new-born child may, after complete inflation, become completely atelectatic, and that this change is accompanied by a diminution of the capacity of the thorax, and that the space previously occupied by the air in the lungs is not subsequently filled with other gases.

1393. *McReddie on Antidotes for Strychnine.*—Dr. G. D. McReddie (*Proceedings of the North-West Provinces Branch of Brit. Med. Assoc.*, 1883, p. 3), after injecting strychnine into dogs, tried the effects of antidotes on the animals, using inhalations of chloroform and amyl-nitrite, with and without eserine and atropine. He found that none of these agents prevented a fatal result, and that their action was too slow to arrest the strychnine convulsions.

1394. *Galippe on Copper in the Cereals.*—M. Galippe, who is well known as an ardent supporter of the view that salts of copper are non-toxic, professes to give (*Ann. d'Hyg.*, 1883, pp. 122 and 279) an historical summary of the question as to the vexed presence of copper in vegetable organisms; but, singularly enough, he ignores all that has been done to settle the question outside his own country and Belgium. He finds habitually traces of copper in the cereals, 0·0005 to 0·001 per cent, the means being 0·0014 per cent. in the bran, and 0·00084 per cent. in the flour of wheat. He finds the metal also to be present in all the vegetable articles of dietary analysed by him. M. Galippe is of opinion that it is this small amount of copper normally, or at all events habitually, present in flour which misled, as he asserts, Kuhlmann into the supposition that copper sulphate has been used as a substitute for alum in bread-making. In the discussion which followed the reading of M. Galippe's paper, M. Pabot pointed out fallacies connected with the detection of minute quantities of copper, and tried to discredit M. Galippe's analyses.

T. Stevenson, M.D.

1395. *Jessop on Poisoning from Tartar Emetic.*—Mr. C. M. Jessop, in the *Brit. Med. Jour.*, July 1883, p. 14, records a case of a woman, aged 31, who mixed a quarter of an ounce of a powder labelled 'cream of tartar' with treacle and sulphur, and took about two teaspoonfuls of the mixture as a medicine. In a few minutes she was actively purged, and violent vomiting came on, followed by cold sweats, shiverings, pricking sensations, and numbness. Laudanum and ether were given to counteract the shivering, also some brandy. For some days the patient was excessively weak, and her stomach was sore, and sensitive to food or liquid. The powder was examined, and found to be tartar emetic; the patient was supposed to have taken about 7½ grains.

1396. *Brunton on Arsenical Poisoning by Wall-Papers.*—Dr. Lauder Brunton, in the *Brit. Med. Jour.*, June 1883, p. 1218, reports on the injurious effects arising from arsenical wall-papers and other articles containing arsenic. The author points out that all persons are not equally susceptible to the injurious action of arsenic, and records cases where all the members of a family have lived enjoying good health during the time they occupied the house, whereas another family, shortly after their entrance, began to suffer from symptoms of arsenical poisoning. The wall-paper was examined, and found to contain arsenic. On its removal, all the symptoms ceased. One member of a family may be more sensitive than the others, and may suffer while the rest escape. The symptoms of arsenical poisoning are often confounded with those of irritation of the intestinal or respiratory tracts, or of the conjunctiva, and the true cause often overlooked. Arsenic given as a medicine produces no injurious action, in quantities which are probably larger than those which enter the bodies of persons exposed to the action of

arsenical papers. The reason of this may be two-fold; either it may be that the arsenic given off from the paper is absorbed by the lungs instead of the stomach, or that the arsenic is given off from the paper in a specially poisonous form. A report is also given of the test employed by the National Health Society to detect arsenic in curtains, carpets, &c. A list of articles in which arsenical pigments, dyes, or mordants are used, is also given. It is recommended that Reinsch's test should be universally adopted by the general public. Any professed chemist for a small fee ought to be prepared to examine papers or textures, and to state whether they contain arsenic or not.

RICHARD NEALE, M.D.

1397. *Mosso and Guareschi on the Substances extracted from Animal Organs, fresh and in a state of Putrefaction.*—From brains in the normal state the authors (*Atti della Reale Accademia delle Scienze di Torino*, 1882), have extracted small quantities of ammonia, trimethylamine, and alkaloids; from brains in a state of putrefaction they obtained a very notable quantity of ammonia, trimethylamine, and extracts which manifestly furnished the reactions of the alkaloids. All these substances produced in frogs phenomena of poisoning analogous to those of curara.

1398. *Giorgieri on Two Cases of Lathyrism.*—Two youths, brothers, were admitted into the medical clinic of the Royal University of Parma, said to be suffering from locomotor ataxy, from chronic myelitis. Professor Giorgieri was led to doubt the accuracy of this diagnosis, from their age, their good bodily health, and their careful but stumbling gait. A careful inquiry into their history convinced him that the disease from which both were suffering was due to the prolonged use of bread made with the flour of the vetch (*Lathyrus Sativus* and *L. Cicera*, Linn). The following is briefly the history of the two cases. 1. L. A., aged 17, had an excellent personal and family history; for a year past his diet had chiefly consisted of bread made with the flour of the vetch. At times he had also eaten the vetches green, causing nausea, vomiting, giddiness, singing in the ears, stupidity, &c. These symptoms gradually increased, and he noticed a tremor of the upper extremities, which became exaggerated on taking up or putting down anything. He gradually lost power in his legs, which felt heavy, with vague pains, formication, and sense of cold. When admitted, he was not able to stand without the support of a stick. On inspection the legs were not wasted, but the abductors and flexors felt hard and contracted. His gait was uncertain and staggering, the right leg being rather the stronger; he lifted his feet with difficulty, often dragged them, and put them down suddenly and forcibly, as if they were heavy weights. The floor, he said, felt irregular; and he was obliged to keep his eyes fixed on the ground to guide his feet. He rested all his weight on a stick. With his eyes shut his movements were still worse, and he felt as if standing between two abysses. Without his shoes, too, he walked worse. In bed, he could not sit up without helping himself up with his arms, nor move his toes, nor flex or extend the foot on the leg, nor the leg on the thigh, nor that on the pelvis completely. Sitting in a chair, he could not extend his legs nor cross them. The knee-tendon reflex was exaggerated; voluntary movement of the abductors and adductors, and rotation of the foot were impossible. Tactile, thermic, dolorific and electrical sensibility were perfect. The temperature was normal. Nothing could be seen in the blood at first or after cultivation. The urine was normal; there was a slight increase of urea. 2. In M. L. T., aged 11, brother of the above, the symptoms were much the same, but less advanced. In the movements of the lower limbs, it seemed that to the execution of the will was opposed the spasm of the muscles antagonistic to those which should execute the movement. The tendon reflexes were exaggerated in both cases. In what organs is the lesion localised? This is unknown. Is it degeneration of the muscular film (Cantani), or central lesion of the cord (Brunelli), spastic paraplegia? Many observers deny the dependence of spastic paraplegia on the lateral columns of the cord (Leyden and Hughlings Jackson.) Targioni-Tozzetti described a true epidemic of paralysis of the lower limbs in Tuscany in the last century, due to the use of lathyrus during a time of scarcity. Cases are also known in animals, horses (Rayer), and pigs (Ferraresi). Lathyrus seems to affect chiefly adolescents, the very young and old escaping its noxious influence. The toxic principle is not yet isolated. That the symptoms are due to such principle seems certain. The general nutrition of both these youths had not suffered. Treatment is not successful, and there is no recorded case of perfect recovery. In these cases the constant and interrupted currents were perseveringly tried, the cold douche also, and generous diet. After three months the improvement was very slight, and they were discharged.

1399. *Guareschi on Localisation of Arsenic in the Organism in a Case of Poisoning.*—Authors yet differ as to the organs in which arsenic chiefly accumulates. Scolosaboff thinks most is to be found in the nervous system; Ludwig, on the other hand, found only traces in the brain, and much more in the kidneys, liver, and muscles. Guareschi finds that arsenic is principally accumulated in the liver, but is found in notable amount in the lungs and kidneys, in very small quantity in the muscles, and only traces in the brain.

G. D'ARCY ADAMS, M.D.

1400. *Bohn on Poisoning by Chlorate of Potash.*—Professor Bohn, of Königsberg, reports to the *Deutsche Med. Wochensch.*, Aug. 15, a case of poisoning by chlorate of potash, which had been prescribed on account of vesical catarrh following gonorrhœa. The patient, a man aged 49, was ordered to buy some of the salt at a druggist's, to dissolve a teaspoonful in a tumbler of water, and to take a tablespoonful of the solution every two hours. Instead of this, he was afterwards found to have dissolved a teaspoonful of the salt every two hours in a glass of water, and to have drunk the whole quantity each time, so that he had taken 60 grammes (2 oz.) in thirty-six hours. When seen by Dr. Bohn, he was pale and collapsed, in a condition very suggestive of cholera, suffering greatly from pain over the stomach, and with suppression of urine. Soon afterwards, a feeling of numbness and formication in the hands and feet came on, causing great distress and restlessness. The small quantity of urine, about half an ounce, passed in twenty-four hours, contained a few blood-corpuscles, and was full of small brownish bodies and cylinders. Under the spectroscope, it showed the absorption-band of methæmoglobin. Death occurred within two days, preceded by increasing collapse and some amount of icterus. The most distinctive appearance found at the necropsy was the brown colour of the spleen, liver, and kidneys, which did not pass

off on exposure to the air, but persisted after some days. The uriniferous tubules of the kidneys were found to be filled with brownish masses, formed of bodies resembling red blood-corpuscles, but without their biconcavity. There was a stagnation of blood in the spleen and the medulla of the bones, and the blood-corpuscles were changed in character both there and in the heart, being shrunken and altered in contour. This case reminded Dr. Bohn of others, in which death was supposed to have occurred from diphtheria. He appends the histories of two, in each of which large doses of chlorate of potash were given. He thinks the drug must no longer be sold as harmless, or be given in unlimited quantities into unprofessional hands. ALICE KER, M.D.

DISEASES OF THE NERVOUS SYSTEM.

RECENT PAPERS.

1401. DUTIL. — Transitory Post-epileptoid Paralysis. (*Revue de Médecine*, March.)

1402. TAMBURINI AND SEPPILLI.—Experimental Study of Hypnotism. (*Riv. Sper. di Freniatria e di Med. Leg.*, Anno VIII., Fasc. iii. and iv., 1882.)

1403. SEPPILLI.—Tendon-Reflexes. (*Riv. Sper. di Freniatria e di Med. Leg.*, Anno VIII., Fasc. iii. and iv., 1882.)

1404. HAMMOND.—The Nature and Seat of Allochiria. (*Caillard's Med. Jour.*, 1883, p. 129.)

1405. ABADIE.—The Syphilitic Origin of Locomotor Ataxy. (*Union Méd.*, Feb. 18.)

1406. STRÜMPELL.—Cerebral Tumour with Central Unilateral Deafness. (*Neurol. Centralbl.*, 1882, No. 16; and *Centralbl. für die Med. Wiss.*, Dec. 16.)

1407. GAREL.—Paralysis of the Sixth Pair of Nerves. (*Revue de Médicine*, 1882, No. 7.)

1408. EISENLOHR.—Circumscribed Acute Anterior Poliomyelitis in an Adult. (*Centralbl. für die Med. Wiss.*, Dec. 23, 1882.)

1409. RUTIMEYER.—Hereditary Ataxy. (Virchow's *Archiv*, Band xci.)

1410. GANGHOFFNER.—Spasm of the Tongue. (*Prager Med. Wochensch.*, and *Centralbl., für die Med. Wiss.*, March 31.)

1411. ETTER.—Two Cases of Acute Bulbar Myelitis. (*Schweizer Aerzte Corresp.-Blätt.*, 1882.)

1412. VON WAHL.—Cephalic Tetanus or Tetanus Hydrophobicus. (*St. Petersburg. Med. Wochensch.*, 1882, No. 39.)

1413. VANLAIR.—The Regeneration of Peripheric Nerves by Means of Tubular Sutures. (*Centralbl. für die Med. Wiss.*, May 26.)

1414. RIEDEL.—Nerve-Lesion of the Left Lower Extremity with Rapid Destruction of the Knee-joint. (*Berliner Klin. Wochensch.*, April 23.)

1415. RIEDEL.—Lesions of the Vagus Nerve. (*Berliner Klin. Wochensch.*, June 4.)

1416. WEISS.—Cases of Spastic Spinal Paralysis. (*Prager Med. Wochensch.*, 1883.)

1417. EULENBERG.—The Treatment and Curability of Tabes Dorsalis. (*Centralbl. für die Med. Wiss.*, June 16.)

1418. MADER. — Spastic Paralysis. (*Wiener Med. Blätter*, March 15.)

1419. HEUBNER.—Cerebral Infantile Paralysis. (*Ibid.*, March 29.)

1420. SCHÜTZ.—The Use of Nussbaum's Bracelet in Writers' Cramp. (*Wiener Med. Blätter*, March 1.)

1421. BAAS.—Aphasia and Agraphia in Typhoid Fever. (*Deutsche Med. Wochensch.*, May 23.)

1422. MCCORMACK.—Double Identity after Trephining. (*New York Med. Record*, May 26.)

1423. BLAISE.—The Localisation of Cerebral Disease. (*Le Progrès Méd.*, No. 17, 1883.)

1424. CHARCOT.—A Case of Spinal Disease consecutive to Contusion of the Spinal Cord. (*Le Progrès Méd.*, No. 9, 1883.)

1425. LANNOIS.—Hemi-anæsthesia due to a Tubercle in the Posterior Part of the Internal Capsule. (*Revue de Méd.*)

1426. DE RENZI.—Isolation in the Treatment of Tetanus and Hydrophobia.

1427. BALL.—Menstrual Mania. (*Jour. de Méd. et de Chir. Prat.*, March.)

1428. BOURNEVILLE.—The Employment of Magnet in Epilepsy. (*Le Progrès Méd.*, 1883, No. 13.)

1429. VERNET.—On Aphasia with Lesion of the Insula. (*Le Progrès Méd.*, 1883.)

1430. RUSSELL, J., AND OTHERS.—On Epilepsy. (*Practitioner*, February.)

1431. BROWNE.—The Formation and Prevention of Bed-sores in Nervous Diseases. (*Lancet*, April, p. 631.)

1432. ALEXANDER.—The Cause of Vertigo. (*Brit. Med. Jour.*, May, p. 956.)

1433. SADOVSKY, T.—A Case of Epilepsy rapidly Developed from the Action of Cold. (*Mediz. Obozrenie*, May 1882, p. 717.)

1434. CARUSO, G. D.—Two Cases of Spinal Irritation Cured by the Continuous Current. (*Il Pisani*, Disp. iv., v., and vi.)

ART. 1401. *Dutil on Transitory Post-epileptoid Paralysis.*—In the *Revue de Médecine* for March M. Dutil records six cases of epileptoid attacks followed by a transient paralysis more or less complete, with or without aphasia. Case I.—In the first case, a tuberculous man aged 52, the attacks commencing in the great toe, gradually extended over the whole right side, and five such occurred in rapid succession the day before his admission into hospital. Only at the fifth did he lose consciousness, and this was followed by right hemiplegia, which, however, had so far disappeared next day as to allow him to walk leaning on his wife's arm from the door to his bed. His speech was a little embarrassed. Dynamometric examination showed the right lower and upper limbs to possess less force than the left, the disproportion being most marked in the upper limbs. In the course of four days, however, they became nearly equal again. Case II.—The patient, aged 20, a young girl, had her first attack which commenced in the little finger of the left hand, in August 1881. It was followed on the same day by two others and left her 'as though paralysed' on the left side, the paralysis soon disappearing. Her next attack was in April 1882, and, commencing in the left foot, extended over the leg and thigh, the arm and the corresponding half of the face. The attacks soon acquired a remarkable periodicity and came on every Wednesday evening between four and five. In the intervals the movements of the left hand were awkward, and the awkwardness was increased after each attack. In this case also the dynamometer showed increased enfeeblement on the affected side, which, however, continued to improve till it reached the wonted condition. In this as in the preceding case, there was flaccidity and not contraction of the affected muscles. Case III.—In the next case, a man aged 20 years, the attacks, commencing in the right arm and becoming generalised, sometimes with and sometimes without loss of consciousness, were followed by a painful and powerful contraction of the fingers, toes, and calves, which disappeared

gradually in some hours. The contractions were found on both sides but were most marked on the side first and principally affected. Case IV.—In the fourth case, the attacks commenced on the right side of the face with prickings in certain muscles, notably the zygomaticus major and the levator labii superioris, which were followed by convulsive twitchings of the same muscles, accompanied by aphasia, or sometimes merely embarrassment of speech. These attacks lasted a few minutes, and were not accompanied by loss of consciousness. Case V.—This case is one in which, while some attacks were devoid of sequelæ, others were followed by various results such as embarrassment of speech, contraction of the convulsed limbs, and in one instance, choreiform movements of the left upper extremity and left side of the face, which persisted for five weeks. There was also a series of minor attacks consisting of muscular enfeeblements lasting a short time. These attacks were well-marked by the dynamometric chart. Case VI.—In the last case, the patient, who had a long 'warning,' tied his handkerchief tightly around his right arm on one occasion as soon as he perceived the cramp and convulsive movements of the right leg indicating the access. This effectually checked the crisis, but a few minutes afterwards he found his right arm paralysed more particularly as regards the extensors. This disappeared in about an hour, but, as it did so, the patient became by degrees completely aphasic. All symptoms had disappeared next day, twelve hours after the attack. Remarking on these cases, the author points out the necessity of distinguishing permanent paralyses, the direct results of cerebral lesions accidentally co-existing with epileptiform attacks, from transitory post-epileptoid paralyses which are not immediately and necessarily dependent upon cortical lesions, and which may arise in epilepsy of purely peripheral origin. As to the cause of these attacks, he adopts the theory proposed by Todd, and subsequently by Robertson of Glasgow, and Hughlings Jackson, that the epileptic convulsion is the result of a 'discharging lesion'—or excessive functional excitement of the cortical motor centres—which by subsequent exhaustion may result in a transient paralysis disappearing as the exhaustion wears off. This view he adduces as the probable explanation of the good results alleged to follow various treatments of motor paralysis—viz., that the attacks were epileptiform not apoplectic, and the paralysis consequently only transitory. And referring to the localisation of cerebral motor impulses, he points out that the permanent paralyses are the result of limited destructive lesions in the cortical motor zone; while the transitory paralyses are determined by lesions situated in the neighbourhood—not in the area of the motor region. Whence permanent paralyses are the only sound basis for the topical diagnosis of lesions.

K. W. MILLICAN.

1402. *Tamburini and Seppilli on Hypnotism.*—These authors have investigated hypnotism from the purely objective side, studying the modes of producing the phenomena, the various stages exhibited, and the effects on motion, sensation, respiration, and circulation. Following Charcot and Richet, they divide the phenomena into three stages. According to the present authors, the first stage is the lethargic; the second, the cataleptic; and the third, or most intense degree of the phenomena, is the somnambulistic. The authors have given their attention more especially to the first two stages. It should be noticed that in some patients the lethargic stage occurs primarily; in others the cataleptic. The hypnotic sleep can be induced in any one of various ways: by steadily fixing the eyes, by a gentle and prolonged monotonous noise, or by slight and frequently repeated tactile sensations. The lethargic state is characterised by exaggerated muscular contractility, exaggerated tendon-reflexes, and paradoxical contraction of Westphal. The respiratory movements are deeper and more frequent, and the circulation shows increase in volume in the peripheral vessels. There is also auditory hyperæsthesia. The cataleptic state, on the contrary, exhibits plastic flexibility of the limbs, diminished tendon-reflexes, diminished sensibility, slow and superficial respiration, and contraction of the peripheral vessels. The somnambulistic condition is marked by general and lasting contracture, which does not yield either to stimuli or to the action of the antagonistic muscles. The subject can, by suitable stimuli, be passed from one stage into another; and even one half of the body may be thrown into the cataleptic state, the other half remaining in the lethargic condition. For example, let the hypnotic sleep be induced by gentle pressure on the eye-balls. The patient falls into the lethargic condition with exaggerated muscular contractility. Now, if one eye be opened and exposed to a strong light, that side becomes cataleptic. One of the most curious phenomena is that the repetition of the stimulus that gave rise to any particular stage of hypnotism restores the patient to his original condition (that is, to the condition in which he was when the stimulus was previously applied). Thus, to remove a person from the hypnotic state, it is only necessary to repeat the stimulus that excited the condition; the different effect depending, according to the authors, on the different conditions of the nerve-centres at the times of the different applications. In regard to the interpretation of hypnotism, Tamburini and Seppilli do not think that the phenomena are due to the removal of the inhibitory influence of the higher centres. On the contrary, they believe that the diverse phenomena of the lethargic, of the cataleptic, and of the somnambulistic states are only so many various manifestations of the increased excitability of the central motor apparatus. The investigations made by these authors are worthy of attention, though their belief in magnets and metals indicates that their conclusions should be received with caution.

1403. *Seppilli on Tendon-reflexes.*—The author finds (*Riv. Sper. di Fren. e di Med. Leg.*, 1882) that the tendon-reflexes are nearly always preserved in the insane. Out of 168 cases it was absent in eleven. Out of ten cases of general paralysis of the insane, in only one case was the reflex wanting, whilst in four cases it was exaggerated.

WILLIAM R. HUGGARD, M.D.

1404. *Hammond on the Nature and Seat of Allochiria.*—Professor Hammond, of New York (*Gaillard's Medical Journal*, 1883, p. 129), has described a case of crossed sensibility, to which Obersteiner has given the name of allochiria. The patient had suffered from a carriage-accident, which had given rise to lateral sclerosis of the spinal cord, or spastic spinal paralysis. Besides this, however, it was ascertained, on testing the sensibility of the lower extremities, that there was complete anæsthesia in the right leg; but that, when the left leg was

pricked or pinched, a sensation was experienced in the exactly corresponding situation on the other leg. As, in one of Obersteiner's cases which proved fatal, a necropsy was obtained which showed disintegration of the posterior horns of the grey matter, amongst other lesions, Hammond is inclined to ascribe the phenomena of allochiria to disease of those parts. There being an almost complete decussation of sensory fibres in the grey matter, lesion of the right posterior horn would produce anæsthesia of the left side of the body, and *vice versâ*. Where allochiria exists, it is essential that the lesion should be unilateral, or, if both horns be involved, that the changes should be at different levels. Of Obersteiner's four cases of allochiria, two were of locomotor ataxy, one of hysteria, and one of direct and severe injury of the spine. [It will be well to wait for some more *post mortem* examinations before accepting the posterior horn theory.—*Rep.*]

1405. *Abadie on the Syphilitic Origin of Locomotor Ataxy.*—M. Ch. Abadie (*Union Médicale*, Feb. 18, 1883) opines that the pathology of tabes is becoming confused rather than cleared up by many recent researches, and considers the absence of the patellar tendon-reflex as frequently a mere functional and extremely unimportant disturbance. With regard to syphilis, he thinks that a chancre is an extremely common occurrence, and that a patient, who states that he has had a chancre, must not therefore be at once considered syphilitic. Syphilis does not appear to produce systematic lesions, but rather irregular, circumscribed, and disseminated affections. Moreover, antisyphilitic treatment never does any good in tabes, more especially in the optic atrophy of that disease, but seems on the contrary sometimes to make it worse. Even when these cases, which can be well studied and followed up with the aid of the ophthalmoscope, come under care at an early stage, that treatment never has the least beneficial result. Mercury especially does harm, and accelerates the progress of the optic affection as well as of the spinal disease. Even subcutaneous injections of peptonate and cyanide of mercury, which are so useful in chororetinitis and specific neuritis, utterly fail in the optic atrophy of tabes. Optic neuritis on a syphilitic base yields almost invariably to mercurial inunction; but atrophy of the optic nerve is never preceded or accompanied by any symptoms of inflammation. The changes which gradually occur in the nerve are shown by simple discoloration; there is never any redness, ulceration, infiltration, or effusion, as is otherwise invariably caused by syphilis; and this appears to M. Abadie a decisive argument against the syphilitic origin of tabes. Syphilis of the spinal cord indeed differs as much from real locomotor ataxy, as cerebral syphilis differs from general paralysis of the insane. In the discussion which followed the reading of M. Abadie's paper at the Société de Médicine of Paris, most speakers disagreed with the author's conclusions.

JULIUS ALTHAUS, M.D.

1406. *Strümpell on Cerebral Tumour with Unilateral Deafness.*—In the *Neurol. Centralbl.* for 1882, No. 16 (*Centralbl. für die Med. Wiss.*, Dec. 16), Dr. A. Strümpell records a case of paralysis of the left side of the face, of the left extremities, with diminished sensibility and increased tendon-reflex, congested papillæ on both sides, paresis of the right abducens nerve, impaired vision, subsequently amauroses, headache; and about two months later there supervened almost total deafness on the left side. Death took place ten weeks later. Dissection revealed a glioma about the size of an apple in the cortex of the right hemisphere with surrounding softening, extending from the fissure of Rolando to the parietal lobes, and reaching below to the central ganglia. The middle ear was intact. The case is interesting, not only on account of the origin of the unilateral deafness, but because it seems to show that the localisation of the perception of auditory impressions depends upon double hearing.

1407. *Garel on Paralysis of the Sixth Pair of Nerves.*—J. Garel describes the following case in the *Revue de Médecine*, 1882, No. 7. After an apoplectic seizure, a man, aged 64, manifested the following symptoms; right-sided facial paralysis, with implication of the orbital branches; paresis of the left lower extremities without impairment of sensation; paralysis of the right abducens (sixth nerve); paresis of the left internal rectus muscle, when the patient would put it into action with the right external rectus; the functions of the left internal rectus were less impaired, if employed with the right to fix the eye upon some near object. *Post mortem*, there were found thrombosis of the basilar artery, and adhesion of this vessel to the pons Varolii. At this part was a small spot of softening on the right side extending slightly to the left. The right anterior corpus quadrigeminum was, when cut into, rose-coloured, but was not softened. The floor of the fourth ventricle appeared to be intact. On section, it was seen in the next place that the patch of softening was altogether superficial, but sent a prolongation into the medulla oblongata from the right backwards towards the nucleus of the abducens, yet so that the deposit was 1 mm. (= ·039 inch) below the floor of the fourth ventricle, but did not reach to it. The brain, generally, was normal, with the exception of a considerable quantity of fluid in the right ventricle.

1408. *Eisenlohr on Circumscribed Acute Anterior Poliomyelitis in an Adult.*—C. Eisenlohr describes (*Centralbl. für die Med. Wiss.*, Dec. 23) the case of a woman, aged 52, who had for the last five years of her life suffered paralysis and atrophy of the right arm and shoulder. The triceps and extensor of the forearm were most especially atrophied; atrophy of the small muscles of the hand was marked. The arm, the hand, and the fingers remained flexed; occasional fibrillar tremors were seen. Sensibility was unimpaired, and the lower limbs were not paralysed. The excretions were normal. The pectoralis major, serratus, and triceps muscles were unexcitable to direct faradaic stimulation; the deltoid, biceps, supinator longus, pronator teres, flexor digitorum, and interossei were excitable. Dissection showed a healthy brain, the central structure of a pale colour; the right anterior cornu of the cervical region of the spinal cord was shorter than the left. In the atrophied muscles the primitive fibres were found wasted, wanting in striæ; fat and pigmentary corpuscles prevailed in the remaining fibres. The biceps was healthy, the brachialis internus was much degenerated. The anterior roots of the right cervical nerve were degenerated and atrophied, the third and fifth cervical were normal, the sixth was partially degenerated. The nerves on the right side were normal. In the spinal cord, between the sixth cervical and first dorsal nerves, the anterior cornu was shrunken, and there was a deficiency of ganglion-cells (especially in the posterior lateral group), and of the net-

work of nerve-fibres, with a great development of Deiter's cells. The vessels of the affected part were much reduced in number. The cornu on the left side was healthy. The part of the cervical cord above the sixth nerve, and the dorsal and lumbar regions of the cord, exhibited nothing abnormal. The author regards the case as one of a true subacute unilateral poliomyelitis, and limited to a portion of the anterior cornua corresponding to less than three nerves supplying the muscles of the upper limb.

1409. *Rutimeyer on Hereditary Ataxy.*—Dr. L. Rutimeyer (Virchow's *Archiv*, Band xci., and *Centralbl. für die Med. Wiss.*, March 12) has in two families met with respectively eight and three cases of this affection. In all it commenced in infancy, and progressively developed itself as ataxy of the lower extremities, trunk, and later on of the upper extremities, to which also were added aphasia and nystagmus. The following are the principal features of these cases as distinguished from the cases described by Friedreich. The latter began at the age of puberty; impairment of the senses of taste and sensation was evident; the phenomena of paresis, paralysis, and contraction appeared earlier; the pathological process showed a greater tendency to spread from the posterior columns of the spinal cord, transversely, to the grey substance. Contraction of the tendons of the feet, especially of the great toes, occurred earlier. The knee phenomena were absent; there was a sense of constriction as by a girdle, and disordered sensibility; the sphincters remained normal; reflex constriction of the pupils was not observed. The medulla oblongata and corpora quadrigemina were doubtless the starting point of these symptoms, which indicated affection of the posterior roots.

1410. *Ganghoffner on a Case of Spasm of the Tongue.*—E. Ganghoffner (*Centralbl. für die Med. Wiss.*, March 31, from *Präger Med. Wochensch.*) describes the following case. A youth, aged 19, had from infancy suffered under a spasmodic affection of the muscles of the tongue, which, when he began to speak, protruded from his mouth. Simultaneously with this movement he experienced jerking of the right lower extremity. In repeating by heart a poem, in singing, or in rapid speaking, the spasm of the tongue would pass off. The patient was anæmic, but otherwise in good health. When not speaking, he seemed to have nothing about him abnormal. His mother had suffered from deafness from her childhood; a brother also had presented a similar defect of speech; a sister was epileptic. Treatment by bromide of potassium had no influence over the spasms.

1411. *Etter on Two Cases of Acute Bulbar Myelitis.*—P. Etter relates in the *Schweizer Aerzt. Corresp.-Blätt.*, 1882 (*Centralbl. für die Med. Wiss.*, March 31) the following two cases. In the first case, a female, aged 27, suffered strabismus, followed in a few days by paralysis of the oculo-motor, abducent, and trochlear nerves, with feebleness of both facial and accessorius, and total paralysis of deglutition. There was considerable weakness of sight, not remediable by glasses. The ophthalmoscopic examination detected nothing abnormal. The extremities were unimpaired, as were also the parts supplied by the fifth nerve. The second case was that of a boy aged 15. With headache, rigor, and vomiting, there followed, in the course of a few days, dysphagia and feebleness of the parts supplied by the facial and hypoglossal, more especially on the left side. Paralysis of the velum palati ensued; and, eight days afterwards, paresis of the left abducens nerve, with paralysis of the glottis and of the cervical muscles. Then paresis of the internal rectus occurred; speech became indistinct, swallowing became impossible, so that artificial feeding became necessary; and on the tenth day death ensued from pneumonia. *Post mortem* inspection revealed numerous deposits in the medulla oblongata. The left abducens and the trunk of the facial nerve were more especially affected; a mass of softening was observed on the right side. The nuclei of the hypoglossal nerve on the left side were diseased, the morbid change extending to the olivary body on the right side. The group of cells of the accessory nerves in the outer border of the anterior horn in the spinal cord, as high as the fourth cervical nerves, had also undergone morbid change, most distinctly on the left side. [The exact nature of these changes is not given.—*Rep.*]

1412. *Von Wahl on a Case of Cephalic Tetanus, or Tetanus Hydrophobicus.*—E. von Wahl (*Centralbl. für die Med. Wiss.*, March 14, from *Petersburger Med. Wochensch.*, No. 39, 1882) relates the following case. Nine days after an injury to the right side of the forehead, close to the edge of the orbit, a man, aged 41, suffered lock-jaw, and right facial paralysis. The muscles of these parts showed exaltation of their reflex excitability. Sensibility remained intact. The muscles of the trunk and extremities were unaffected, as were also those of the neck. Electric excitability of the facial muscles was normal on both sides. The reflex excitability of the muscles of deglutition, also, was so much augmented that the act of swallowing was almost impossible. The tongue was mobile, as also the uvula and palatine arch. The duration of the case from the receipt of the injury was three weeks, when it ended in death.

1413. *Vanlair on the Regeneration of Peripheric Nerves by means of Tubular Sutures.*—C. Vanlair (*Centralbl. für die Med. Wiss.*, May 26) says that, failing to obtain union of divided ends of nerves by Glück's method of the introduction of these into a tube of calcined bone, he has succeeded with the sciatic nerve of a dog by inserting the two ends of nerve into a drainage-tube, in which, although the two ends do not come into immediate contact, he finds that proliferation takes place at the central end and extends gradually to the peripheral segment. Thus a partial restoration of the muscular action takes place by the regeneration of the motor nerve fibres. The proliferation of the axis-cylinder commences above the section, as high as 1½ centimètre (= about ½ English inch), and shows itself first in lines on the central section; the result, the author considers, of inflammation of the epineural tissues. The newly formed fibres are originally only bare axis-cylinders, with scattered protoplasmic nuclear corpuscles. Later on they gain a covering of connective tissue (the gâine lamelleuse), until, still later, the line of demarcation between the two altogether disappears. The intermediate segment exhibits in its upper half minute new fibres embedded in a homogeneous mass, and in all stages from that of the bare axis-cylinder to the perfect medullary nerve. In the lower segment the fibres are more completely formed, showing that growth had taken place from the periphery towards the centre. By the employment of the tube, it is thus possible to unite the ends of nerves between which a con-

siderable space exists, and this will prove of value in surgical operations.

1414. *Riedel on Nerve-lesion of the Left Lower Extremity, with Rapid Destruction of the Left Knee-Joint.*—B. Riedel, of Aix-la-Chapelle, relates the following case in the *Berliner Klin. Wochensch.*, April 23. A powerful man, aged 25, was, on Aug. 16, 1881, stabbed in the back, the knife passing between the first and second lumbar vertebræ to the left of the middle line. The patient lay in a swoon for an hour afterwards, and frequently during the next eight days became unconscious. On first coming to himself the left lower extremity, from the hip downwards, was numb and powerless. In the course of the first week clonic spasms of the flexor frequently occurred, which, however, ceased on removal of the sutures from the wound, with the concurrent escape of bloody serum. The wound was healed in about three weeks, yet for two months the patient remained in bed, unable to do more than slightly flex the thigh. Nothing abnormal was to be seen on the knee or foot, and the patient was free from pain. After about three months from the date of the injury he began to move on crutches, when, within eight days, without the occurrence of any pain, the knee-joint was so entirely destroyed that the leg could be flexed on the thigh at almost any angle. In May 1882, he left the hospital, but returned in September with an ulcer, which could not be healed, on the sole of the foot. The affected limb was swollen, and was a centimètre and a half shorter than the other. The swollen knee-joint contained fluid, and grated sensibly on movement, and, as previously, could be bent in any direction. Under these circumstances, amputation was performed. In about three months the patient walked on a wooden leg, no worse than others in a similar condition. The several parts of the joint had undergone great changes. The peripheral nerves, at their termination at the second lumbar vertebra, had not shown evidence of injury until the excessive and premature use of the joints induced lesions, resembling those pointed out by Charcot as occurring in tabetic arthritis.

1415. *Riedel on Lesions of the Vagus Nerve.*—It has recently been held by Dr. Deibel (*Ueber die Traumatische Vagusparalyse beim Menschen*, Berlin, 1881) that in an otherwise healthy person unilateral section of the vagus is not necessarily followed by dangerous consequences. This opinion, Dr. B. Riedel remarks (*Berliner Klin. Wochensch.*, June 4), being founded upon a limited number of cases, its value depends upon further observation. Dr. Riedel communicates the following case. J. R., a labourer, aged 49, had suffered for several years from a strumous enlargement, which within eight weeks had rapidly increased in volume. The patient suffered severely from pains radiating from this point, and was becoming much emaciated. A smooth lobulated tumour was felt on the left side of the neck, which pushed the larynx over toward the right. The tumour passed under the sterno-cleido-mastoid muscle behind the left ear, to such an extent that the space between the maxilla and the clavicle was almost filled up. It had somewhat displaced the vessels, but there was no indication of pressure upon these or on the nerves in the neck. The pulse was good, the voice clear, and respiration normal. The removal of the tumour was therefore feasible, despite the cachectic condition of the patient. The removal was effected on October 26, by in the first place cutting through the sterno-cleido-mastoid and reflecting the divided muscle, whereby the tumour became a little more mobile. Preliminary detachment of the tumour from the great vessels behind the clavicle was impossible, whilst it was fixed between the latter and the maxilla. It could only be released step by step, as it was found to be closely united to the internal jugular vein. The separation was only effected with great difficulty, the space between the tumour and the maxilla being deep and narrow. The vagus, stretched and attenuated by the tumour, was cut through without producing any effect upon the pulse or respiration. A prolongation of the pulse occurred for a short time, when a ligature was applied to the jugular vein. A second division of the vagus (to the extent of 15 centimètres) occurred in enucleating the tumour. The operation was concluded by the division of the isthmus of the thyroid. The temperature and the pulse rose after the operation, but declined on the third day; and the patient appeared to be progressing favourably, except that there was loss of voice. On the twelfth day rigors occurred, followed by a slightly purulent expectoration; and without any further occurrence of dyspnœa the patient died. On inspection of the parts, it was found that the jugular vein between the ligatures contained coagulation, which extended towards the head. The brain, apart from old thickening of the pia mater, was healthy. The heart also was healthy. The muscles of the larynx on the left side were in a state of fatty degeneration. The right lung was œdematous. In the upper lobe of the left lung there was puriform bronchitis and congestion of its parenchyma. In this case the cause of death is not clearly made out; but it may have been due to the condition of the lung induced by division of the vagus.

1416. *Weiss on Cases of Spastic Spinal Paralysis.* Dr. N. Weiss relates the following cases (*Prager Med. Woch.*, 1883, and *Centralbl. für die Med. Wiss.*, June 23). 1. A man, aged 55, suffered from weakness and stiffness of his lower extremities, the upper limbs remaining unaffected. The only other symptom that he presented was slowness of speech. After death, symmetrical sclerosis of the lateral columns was found. There were also two deposits in the brain—one a cyst of the size of a walnut, on the right side in the posterior part of the corpus striatum, reaching in the corpus dentatum. On the other side a deposit of cell-growth, of the size of a hazel-nut, was found in the corpus striatum. 2. A man, aged 31, having experienced pain and sense of constriction in his limbs, found difficulty in walking. Some weeks afterwards, symptoms of pressure on the cord appeared. Caries of the sixth, seventh, and eighth dorsal vertebræ was found after death, with secondary degeneration of the lateral columns of the spinal cord. 3. A man, aged 29, had only for a short period before his death the symptoms of spastic paralysis. Nerve-stretching had been employed. Death occurred in nine days; on *post mortem* examination, multiple cerebro-spinal sclerosis was found.

1417. *Eulenberg on the Treatment and Curability of Tabes Dorsalis.*—Dr. Eulenberg states (*Centralbl. für die Med. Wiss.*, June 16) that he had cured three cases out of three hundred patients; and that after a lapse of several years the cure had continued unimpaired. In one case he had administered nitrate of silver. In the second case he had employed galvanism, and completed the cure in a hydropathic establishment. In the third he had

combined galvanism with Chapman's warm water bags. Finding that the nitrate of silver was often of no service, the author attributed the failure to non-absorption of the salt. To obviate this difficulty Dr. Eulenberg employed daily subcutaneous injection of an albuminous solution, in the dorsal region. If severe pains were experienced, morphia was injected. The author has seen much benefit follow the long continued use of Chapman's bags, in the recumbent position.

W. B. Kesteven, M.D.

1418. *Mader on Spastic Paralysis.*—Dr. Mader of Vienna, writing on spastic paralysis (*Wiener Med. Blätter.*, March 15), gives a case where all the symptoms were those of the disease described by Erb and Charcot, but where, after death, although superficial microscopic investigation seemed to show the affection of the lateral columns to be primary, yet a more exact examination, undertaken by Professor Chiari, seemed to indicate that the lateral affection was secondary. Meningitis of the spinal cord in the cervical and dorsal regions was found, which Professor Chiari believed to be the primary affection; but Dr. Mader thinks it may have been caused by the exposure during a drunken fit, which brought on the cystitis from which the patient died. The first appearance of paralytic symptoms, too, twenty-five years before, was in the lower extremities, and in the lumbar part of the spinal cord no meningitis was found, but only grey degeneration of the crossed pyramids.

1419. *Heubner on Cerebral Infantile Paralysis.*—On account of the rarity with which infantile paralysis can be investigated by the same person both during life and after death, Professor Heubner of Leipzig reports (*Wiener Med. Blätter*, March 29) a case which he was able to follow from its commencement to the necropsy. A formerly healthy child, 15 months old, who had become rather pale and thin from an attack of tracheo-bronchitis, was suddenly seized with a slight convulsion, which recurred two days afterwards, no cerebral symptoms being observed in the interval. Two days later, during the early part of the night, a much more severe attack came on, with complete and lasting loss of consciousness, trismus, rigid extension of the extremities, rapid pulse, and very high temperature—nearly 105° F. For four weeks the infant's life was in great danger, the trismus persisting for nineteen days, and necessitating the administration of fluids through the nose, and the symptoms of cerebral fever causing great anxiety. By the fifth week the danger to life was past, and the expression of the child's face showed some interest in what was going on; but the contraction of the extremities never disappeared, the trunk muscles were so paralysed that the child could not sit, and she never learned to speak. Death occurred at the age of $3\frac{3}{4}$ years, in the course of a severe bronchitis, and cysts filled with clear fluid were found in five situations in the brain—1, on the surface of the left hemisphere, destroying both central convolutions; 2, in the gyrus postcentralis of the right second parietal convolution, extending inwards to the outer wall of the lateral ventricle; 3, a very small one in the interior of the right cerebrum; 4, in the left corpus striatum, occupying the place of the destroyed nucleus lenticularis; 5, in the pons Varolii, destroying the fibres of the pyramids. The cause of all these appearances was explained by the presence of the remains of old endocarditis and embolic infarcts in he kidney, and the remains of an embolic clot were till visible in the artery of the right Sylvian fissure.

1420. *Schütz on the Use of Nussbaum's Bracelet in Writers' Cramp.*—At a meeting of the Society of German Physicians in Prague, on Feb. 16 (*Wiener Med. Blätter*, March 1), Dr. Emil Schütz mentioned a striking case of success from the employment of Nussbaum's bracelet in writers' cramp. (A description of the bracelet and of the treatment will be found in the London Medical Record for Dec. 1882, p. 491.) A clerk had been unable to write for months, and had been treated for four weeks with passive movements and massage without result, in spite of careful abstaining from writing during that time. Immediately on the application of the bracelet he was able to write, and on the following day he resumed his work for the usual time without any difficulty; only, however, so long as he wore the bracelet. Cases where the inability to write depends on other muscles than those of the fingers, or where tremor is present, do not seem to benefit by the bracelet. Professor Gussenbauer supported what was said, mentioning that the treatment is of no avail when contraction of the muscles of the arm has occurred.

1421. *Baas on Aphasia and Agraphia in Typhoid Fever.*—Dr. Baas, of Mayence, mentions (*Deutsche Med. Wochensch.*, May 23) a case of aphasia and agraphia, with paralysis of the right facial nerve and of the right arm, in a boy, aged $8\frac{1}{2}$, in the course of a severe attack of typhoid fever. The paralysis appeared on the twenty-first day, when the sensorium was much affected; the other symptoms were first noticed on the return of consciousness. The patient could not pronounce either words or numbers, although he held up his fingers correctly to express a number suggested to him; and the scrawls which he made on attempting to write were the source of great amusement to him, as he saw them so different from what he intended to make. There were no signs of improvement in the aphasia until eight weeks from the commencement of the illness, but then the boy began to learn step by step anew to speak and to write, and by the end of a month he could do both well. The lesion was probably a capillary apoplexy in the left third frontal convolution and its neighbourhood, but the diagnosis was not, fortunately for the patient, verified *post mortem*. Alice Ker, M.D.

1422. *McCormack on Double Identity after Trephining.*—Dr. McCormack (*New York Med. Record*, May 26, 1883) relates the case of a farmer, aged 23, who, when fifteen years of age, was struck on the head with a pointed hammer, from which injury he was unconscious for some hours, and slowly recovered, retaining a permanent depression of the skull in the situation of the wound. Two or three years later he changed his abode, purchased a farm, and married. About six months before coming under medical treatment, he had begun to show signs of mental derangement. The depressed portion of the bone was removed by trephining, and the patient made an excellent recovery, the relief to the mental symptoms being immediate and permanent. But he seemed to think he had just recovered from the blow on his head; he did not recognise his wife, knew nothing of the purchase of his farm, and had lost all recollection of the neighbours, his business, and the roads of the district. He said he was quite unable to recall any circumstance which had occurred during the interval between his injury and the operation.

1423. *Blaise on the Localisation of Cerebral Disease.*—Blaise reports (*Le Progrès Méd.*, No. 17,

1883) two cases which oppose the doctrines of cerebral localisation. In the first, an old woman, aged 61, had right hemiplegia of five years' standing, followed by contraction. At the necropsy the left side of the brain, the cerebellum, peduncles, medulla oblongata, and spinal cord were healthy, while on the right side there was a small patch of softening from 5 to 7 millimètres in depth at the posterior end of the fusiform lobule, extending to about a centimètre from the posterior extremity of the occipital lobe. There was also a linear ochreous patch on the upper half of the external surface of the putamen (ascending frontal section). On separating the lips of the anterior fissure of the medulla, there was evidence of the decussation of the pyramids. In the second case, a man, aged 61, after an attack of bronchitis and pleurisy, lost a great degree of his cutaneous sensibility on the left side. His special senses were unaffected. This hemi-anæsthesia, which affected the face, arm, and leg, lasted till his death. At the necropsy, besides a few adhesions of the membranes over the frontal and occipital lobes, the only lesion was a patch of softening of the white substance around the external surface of the extremity of the posterior horn of the right lateral ventricle.

1424. *Charcot on a Case of Spinal Disease consecutive to Contusion of the Sciatic Nerve.*—Charcot (*Le Progrès Méd.*, No. 9, 1883) relates the case of a man, aged 40, who had never had syphilis, gonorrhœa, nor rheumatism, but who had certainly committed alcoholic excesses four years anteriorly, and who was struck on the buttock by the end of a piece of timber just over the sciatic nerve. In consequence he suffered from severe sciatic neuralgia, followed by partial paresis and muscular wasting, well recognised results of such an injury. But, in addition, he began to complain of a constriction round his waist, and lost control over his sphincters and power of erection. The affected leg was wasted, cold, and marbled looking; the foot was a little swollen; sensibility, especially electric sensibility, was diminished; cutaneous reflexes were normal; the tendon-reflex was normal, but exaggerated, in the other leg. But in percussing the patellar tendon of the affected leg there was a sharp movement of adduction towards the middle line. In addition, electrical examination gave the reaction of degeneration in the muscles supplied by both the large and the small sciatic nerves.

1425. *Lannois on Hemi-anæsthesia due to a Tubercle in the Posterior Part of the Internal Capsule.*—Dr. Lannois (*Révue de Méd., Reprint*) reports the case of a young soldier who was attacked by orchitis, the result of mumps. The orchitis was followed by caseous epididymitis, and a few months later he began to complain of headache, vertigo, vomiting, slight paralysis of the left side of the face, and well marked hemi-anæsthesia, limited to the left side. Smell, taste, and hearing were defective, but vision was quite normal; there was neither hemiopia nor amblyopia. The patient died later with symptoms of tuberculosis. In the brain there were about eighty tubercular tumours, but one in particular occupied the posterior part of the internal capsule in the right hemisphere. This situation is that in which lesions, both experimental and pathological, have been shown to be followed by hemi-anæsthesia, but the pathological lesions heretofore described have been hæmorrhages.

1426. *De Renzi on Isolation in the Treatment of Tetanus and Hydrophobia.*—Prof. de Renzi, of Genoa, has treated certain cases of tetanus successfully by plugging the external auditory canals with wax, and placing the patient alone in a darkened room, the door of which was opened every four hours to give food and drink. The patient was urged to keep as quiet as possible. A similar line of treatment is recommended by M. Lucas-Championnière in cases of hydrophobia.

1427. *Ball on Menstrual Mania.*—Prof. Ball (*Jour. de Méd. et de Chir. Prat.*, March 1883) lately quoted from Hitzig an interesting case of menstrual mania, in which a mother killed her child during such an attack. In the interval she was quite sane, but at every monthly period she was subject to an attack of acute mania which, in this instance, proved homicidal. Such cases have a well-defined medico-legal interest.

1428. *Bourneville on the Employment of Magnets in Epilepsy.*—M. Bourneville (*Le Progrès Méd.*, 1883, No. 13) gives a short summary of the history of the employment of magnets in epilepsy, which goes back as far as Paracelsus, with drawings of the various apparatus used. In fifteen cases submitted to this treatment he found no very definite results; two were slightly better during the time it was in use, but he does not accept the view that the amelioration was due to the treatment.

1429. *Vernet on Aphasia with Lesion of the Insula.*—Vernet (*Le Progrès Méd.*, No. 23, 1883) has described a case of right-sided hemiplegia and aphasia. A month before the attack there was transient vertigo with slight right-sided paralysis. After the attack, there was marked aphasia, with retention of the intellectual faculties. There was a third attack before death, after which the patient did not regain consciousness. At the necropsy there was found disease of the aortic valves, with atheroma of the coronary arteries. The left frontal convolution was quite intact; the white matter of the left island of Reil was the seat of a hæmorrhage. On the right hemisphere, there were a patch of softening in the occipital lobe at the summit of the parallel fissure, and another patch of softening at the lower part of the fissure of Rolando, extending to the foot of the third frontal convolution. R. SAUNDBY, M.D.

1430. *Russell and Others on Epilepsy.*—The *Practitioner* for February 1883 contains a series of original articles on epilepsy. Dr. James Russell treats of the remedies used for epilepsy before the introduction of the bromides; amongst them, iron, zinc, arsenic, strychnia, opium, cannabis Indica, belladonna, atropine, &c., are noted, and cases illustrating their use are given. Dr. Radcliffe communicates some medical annotations concerning epilepsy, paralysis, and other disorders of the nervous system; whilst Dr. Robert Saundby writes on the treatment of epilepsy in which he draws attention to the following points: 1. The value of combining bromine salts with each other and with digitalis; 2, the use of zinc and cannabis Indica as adjuncts to the bromide of potassium; 3, the use of borax in some cases which resist the bromides; 4, the employment of caffeine or theine, and nitro-glycerine, in the treatment of epileptic vertigo.

1431. *Browne on the Formation and Prevention of Bed-sores in Nervous Diseases.*—Dr. Crichton Browne in the *Lancet*, April 1883, p. 631, details his experience in the treatment of diseases of the nervous system. He commences his paper by putting forth some of the views that explain the occur-

rence of bed-sores in such cases, and then goes on to show how they may be avoided; but, as his experience has been nearly confined to instances of general paralysis, his remarks necessarily have chiefly reference to that disease. Special attention is drawn to the necessity of giving the patient a liberal mixed animal and vegetable diet, with as little alcohol as possible, and paying great attention to scrupulous cleanliness.

1432. *Alexander on the Cause of Vertigo.*—Mr. Alexander, in the *Brit. Med. Jour.*, May 1883, p. 956, refers to a paper on 'Vertigo,' &c., by Dr. Woakes, in the *Journal* of April 28, where Dr. Woakes says that vertigo and the phenomena associated with it are due to changes in the vertebral artery. Mr. Alexander draws attention to an article in *Brain* (July 1882, p. 170), where an account of several cases of ligature of both vertebral arteries in epileptics is given. In only one case, in which Mr. Alexander ligatured both vertebrals, did any disturbance ensue in the brain, and in that case tinnitus and deafness came on, but not vertigo. No mental hebetude has followed the ligature in any case, such as occurs after the vertebral inefficiency of Dr. Woakes. RICHARD NEALE, M.D.

1433. *Sadovsky on a Case of Epilepsy from the Action of Cold.*—In the *Mediz. Oberzenie*, May 1882, p. 717, Dr. T. Sadovsky records an instance of what he believes to be epilepsy from the action of cold. His patient was a strongly built, previously quite healthy, married peasant woman, aged 20, who, twenty-four hours after severe chilling on a cold windy winter-day, began to suffer from 'epileptic' fits. During the first day there were 12 paroxysms, 'each lasting about 10 or 15 minutes,' and each beginning with aura in shape of epigastric pain. Simultaneously there appeared slight fever, tenderness and enlargement of the spleen, tenderness in the hepatic region, loss of appetite, and sleeplessness. The administration of muriate of quinine proved of no avail. During eight days the fits returned about ten times a day. On the ninth day the author administered a dose (30 grains) of chloral, and a mixture containing 1 drachm of bromide of potassium, 3 drachms of tincture of convallaria majalis, and an ounce of distilled water: four tablespoonsfuls daily. No more fits followed. Three days later the patient left the hospital, feeling quite well. [Another case of 'epilepsy from cold' is reported by Dr. Bluch in the *Centralblatt für Nervenheilkunde*, 1882, p. 504.—*Rep.*] V. IDELSON, M.D.

1434. *Caruso on Two Cases of Spinal Irritation Cured by the Continuous Current.*—Spinal irritation is a special functional alteration of the spinal cord. It is important to establish early an exact diagnosis, as it is often confounded with incipient disease of the cord of much graver prognosis. There are two forms—the hyperæsthetic and the neurasthenic; the first occurring chiefly in females, the latter in males, the morbid change in both being probably the same. Erb, on the other hand, considers these as two separate morbid conditions, and draws a distinction between spinal irritation proper and spinal neurasthenia. Of the morbid anatomy, nothing is certainly known. Hammond, considering that spinal irritation is developed under the influence of debilitating causes, thinks that these may bring about such exhaustion of the vaso-motor centres, that hyperæmia from relaxation of the vessels results. In other cases, where the determining cause is violent psychical excitement, a contraction of the vascular walls is set up, causing a spasmodic anæmia. Beard also maintains that hyperæmia sometimes, and sometimes anæmia, may be the cause of spinal irritation. Hirsch and Erb think that there is only a functional disorder, without any organic change in the cord; the functional alterations consisting in intimate and subtle lesions of nutrition of the lumbar section of the cord. This hypothesis seems most in accord with the ordinarily favourable course of the disease, the absence of paralytic phenomena, and the want of an objective change. As regards diagnosis, spinal irritation may be at first confounded with other spinal diseases, but with care it may be easily distinguished, especially if one notice that the subjective phenomena complained of by the sufferer are not at all in proportion to their objective examinations. Clinically, it is useful to distinguish the hyperæsthetic form from the neurasthenic; the first occurs chiefly in females, the second in males. In the first, disorders of sensation predominate, severe pain in the back and along the spine, which is sensitive and painful on pressure, and to the contact of the hot or cold sponge. In neurasthenia, defect of motor energy and loss of sexual power are the chief symptoms. The causes of both varieties are much the same, psychical influences, overwork (mental or bodily), grief, anxiety, sexual excesses, loss of sleep, &c. It is very important to distinguish spinal irritation from other diseases of the spine, not only to determine the treatment, but to ease the patient's mind, who is nearly always hypochondriacal and fancies that he has some grave and incurable malady. From active hyperæmia of the cord, the neurasthenic form is distinguished by the acute pain of the spine, cutaneous hyperæsthesia, and convulsive attacks, and from passive hyperæmia by the different 'etiological momentum,' and in this, symptoms of paresis and sense of weight in the lower limbs quickly show themselves. Hyperæsthetic spinal irritation is more easily confounded with spinal hyperæmia, but the long duration of the malady and the absence of paralysis point out the nature of the disease. The early appearance of parasthesia, 'lightning pains,' and pain round the waist, inability to walk with the eyes closed, &c., distinguish the case from incipient tabes. From myelitis the diagnosis is easy; the spine is only painful on strong pressure, there is pain round the waist, cramps, and painful contractions, and soon anæsthesia and paralysis of the lower limbs and bladder. The most successful treatment is by the continuous current. It is principally in virtue of the specific catalytic action of the continuous current, which is exerted on the blood-vessels, or the processes of absorption, osmosis, and interchange of material, that the alterations of nutrition that are supposed to exist in the cord, are resolved. The faradaic current has very little catalytic action, for which reason the continued current should always be preferred in diseases of the spinal cord. The author's conclusions are these. 1. Spinal irritation is a functional disease, the diagnosis of which rests on a special group of clinical symptoms, although at present we are ignorant of the pathological actions. 2. The disease has its seat in the spinal medulla, and probably the anatomical alteration consists in intricate and subtle lesions of nutrition of the lumbar section of the cord. 3. Both forms of spinal irritation (the neurasthenic and the hyperæsthetic) improve rapidly, and are cured only by the application of the constant current.

G. D'ARCY ADAMS, M.D.

REVIEWS.

ARTICLE 1439.

Chapters in the History of the Insane in the British Isles. By D. HACK TUKE, M.D., F.R.C.P. London : Kegan Paul, Trench, & Co. 1882.

THIS volume is one that would at any time form a welcome addition to our literature ; and the wonder is that hitherto the history of the insane in this country was unwritten, and, as a consequence, almost unknown. The reason, however, is not far to seek. Until the present century the public knew little and, if possible, cared less about the insane. In addition to this, the materials for a history were not readily obtainable. In former days, there were no commissioners' reports showing the state of insanity throughout the country, and the number and distribution of the insane. Moreover, not everyone had leisure and learning to search through old and scattered documents, and the ability to work into an interesting and connected narrative the raw materials selected therefrom. This work has now been accomplished; and the author has made the public his debtors by enriching the philanthropist, the medical man, and the antiquary, not merely with a book of reference, but with a volume of deep, almost fascinating, interest.

To William Tuke England owes the inauguration of the humane, and one might say common-sense, treatment of insanity, begun at the same time, and independently, in France by Pinel ; and there is a certain fitness in the fact that this record of our forefathers' thoughtless inhumanity, and of their gradual improvement, should now be written by his great-grandson. Tuke's great merit was that he substituted as principles of treatment employment and kindness for punishment and fear. It may not be out of place here to remark that Tuke was a layman, like several other benefactors of the insane, including the venerable nobleman who has led the reforms and who has guided the progress of the lunacy legislation of the past half century. This fact should make us tolerant of a wholesome, though severe and not unfrequently unmerited, criticism from without.

The perusal of this history shows that we have good reason to congratulate ourselves on the progress that has been made, even within the memory of men still living. It shows further that we have not yet attained anything like perfection ; that in many respects there is still room for improvement, and, best of all, it shows that new lines of amendment are sought for and are entered upon with an intelligent zeal that has no parallel in former times.

Though space forbids even the mention of numberless points of interest, the importance of one or two will sanction a word. One point refers to the suggestion made by Dr. Bucknill some years ago, that the State should undertake the care of the insane with two boards of management, one for paupers, the other for all above that class. The scheme cannot be discussed here ; but it must be said that it looks attractive. The unsatisfactory manner of dealing with criminal lunatics is another matter that deserves examination and demands reform. Lastly, the inadequate provision for imbeciles and idiots stands sorely in need of remedy.

In conclusion, it may be observed that this book is marked with the qualities that characterise all works by the same author. It is painstaking, it is readable, it is trustworthy, and it is useful as a work of reference. WILLIAM R. HUGGARD, M.D.

ARTICLE 1440.

Minor Gynæcological Operations. By J. HALLIDAY CROOM, M.D. Second Edition. Edinburgh : E. & S. Livingstone. 1883.

THE second edition of this excellent manual is dedicated to the leader of the Edinburgh Midwifery School, Dr. A. R. Simpson. The work is admirably adapted as a practical guide to obstetric clinical clerks, house surgeons and physicians, as well as medical practitioners. The various physical signs, symptoms, and modes of dealing with the various conditions are clearly and concisely laid down. A very useful feature is the presence of prescriptions of uterine medicaments and applications. Dr. Croom adopts the lever theory which we believe to be the correct one, in reference to the mode of action of pessaries ; and this part of the work is well illustrated by diagrams displaying the manner of introducing these instruments. It would save confusion, if in the next edition of his manual Dr. Halliday Croom were to give underneath each illustration the source from which it is taken. There are many reasons for doing this. The fact of so speedy a sale of the first edition testifies to the practical value of Dr. Croom's manual. It is well arranged throughout, and will, no doubt, retain the hold it has taken in the estimation of students and practitioners.

FANCOURT BARNES, M.D.

NEW INVENTIONS.

ARTICLE 1441.

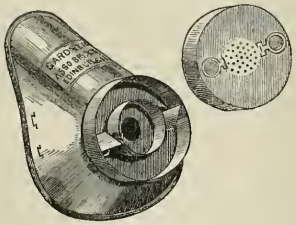
DR. J. GRAHAM BROWN'S NEW FORM OF RESPIRATOR FOR CONTINUOUS INHALATION.

DR. J. GRAHAM BROWN, in the *Edinburgh Medical Journal* for May 1883, writes as follows. 'The patterns of respirators suitable for continuous inhalation are very numerous, and among them it is not difficult to find several varieties which to a large extent fulfil one purpose, viz., the impregnation of the inspired air with whatever volatile medicament has been used to charge the instrument. None, however, so far as I am aware, perform the useful office which a simple "comforter" fastened across the mouth does—that of warming the air which is drawn through it into the lungs, the outgoing air heating the fabric to such an extent as to elevate the temperature of the ingoing air as it passes through the meshes of the material. It has always seemed to me that a respirator for permanent use ought to fulfil this purpose as well as the other, and so provide not merely a medicated atmosphere, but one which is at the same time agreeably warm—a very important matter in cases of phthisis. No doubt, in the less complicated forms of respirator, such as those recommended by Roberts, Saundby, and Burney Yeo, where the expired as well as the inspired air traverses the sponge, a certain amount of warming does take place ; but with this arrangement there is necessarily combined a certain and considerable disadvantage in that the expired air

drives much of the vapour from the sponge away from the patient. It is very desirable that, except when the inspiration is drawn through the sponge, the latter should lie in what is practically a closed box, and the volatile vapour thus allowed to accumulate until it is drawn into the chest by the next inspiration. The respirator devised by Dr. Mackenzie allows of this by a valvular arrangement, the expired air passing out through two openings at the side guarded by valves opening outwards, while the inspiration is drawn through the sponge and through an orifice covered by a valve opening inwards. In this way, however, the warmth of the air leaving the chest is almost entirely lost so far as the sponge is concerned.

'To utilise the warm air expired so as to raise the temperature of the sponge, while at the same time it should not pass through it, seemed to me so important an indication that I have designed several forms of oro-nasal respirator with this object in view, sometimes making the expired air pass through a spiral tube enclosing the sponge in its coil, at other times following with some modification the design given here. I will, however, at present only describe one of these, which appears to me, on the whole, to be the most useful.

'The shape of the instrument is very much that of other oro-nasal respirators, fitting tightly over nose and mouth. The portion of the respirator farthest from the mouth has the form of a circular box, which is divided by an inner ring of metal into two compartments, which, when the lid or cap is in position (it has been removed in the accompanying diagram), are completely disconnected the one from the other. The inner circular compartment holds a sponge charged with the substance to be inhaled, when the instrument is in use, and through it the inspired air alone passes. The air is drawn through the perforations in the centre of the cap, traverses the sponge, and enters the main cavity of the respirator through the circular orifice which is seen in the centre of the floor of the middle compartment. In order to prevent the regurgitation of air into this central compartment during expiration, there is placed over this orifice a valve opening inwards,



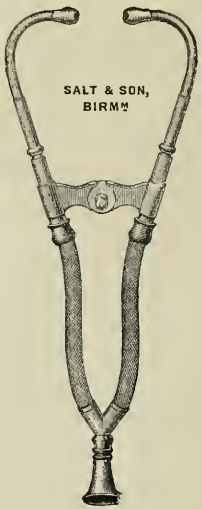
which is not shown in the drawing, as it lies on the side nearest to the patient. Encircling this lies an outer annular compartment, which is solely concerned with the expired air. The air enters it through two openings, one on either side, which in the accompanying drawing are almost hidden by two sloping partitions. On the lid or cap will be seen two corresponding orifices, each covered by a valve opening outwards. When this lid is properly fitted on, these two sets of openings nearly correspond; but the partitions already mentioned so divide the compartment as to make the stream of out-going air on either side course half way round before it can escape, so that the air entering by the right hand inner orifice escapes by the left hand outer orifice, and *vice versâ*. The two outside valves prevent air from entering during inspiration. By these mechanical arrangements the inner compartment which holds the sponge saturated with the drug to be inhaled is only traversed by air during the act of inspiration. Its temperature is elevated by the stream of hot air by which it is surrounded during expiration, and thus not only is the air before entering the air-passages warmed as it passes through the sponge, but the substance to be inhaled is thereby rendered more volatile, and therefore better fitted for the purpose for which it is intended.

'It is hoped that in this instrument the main conditions of a respirator for continuous inhalation are fulfilled. So far as I have had the opportunity of observing its action clinically, it has proved very satisfactory.'

These respirators may be obtained from Mr. Gardner, 45 South Bridge, Edinburgh.

SALT & SON'S NEW PORTABLE BINAURAL STETHOSCOPE.

The improvement in this stethoscope consists in this usually awkward instrument being, for the first time, rendered really portable and handy. This is effected without loss of acoustic perfection by dividing the metal tubes into three pieces, each of which slides



within the other tightly and without noise, like a telescope; the flexible tubes are connected by bayonet locks, which prevent them from falling out in use, as they frequently do in those of the ordinary form. The minimum size of the stethoscope when disconnected is 5½ inches, and the price 25*s.* 3*d.* post-free.

MR. W. D. BOWKETT'S PATENT CLINICAL THERMOGRAPH.

For determining and recording on permanent diagrams all variations of temperature occurring in any patient during twelve hours. This instrument, of which an engraving is given (fig. 1), is the invention

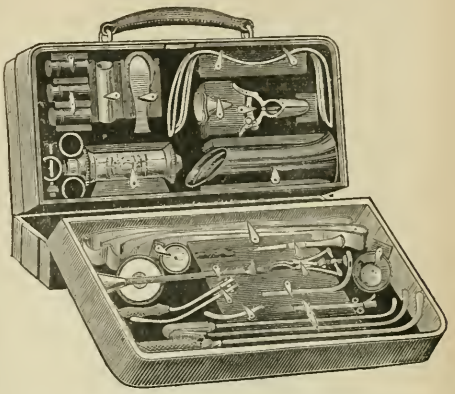
of Mr. Bowkett, of the Leeds Fever Hospital, who has bestowed much time and labour on its perfection, assisted by Messrs. Salt & Son, of Birmingham, in whose hands it is now placed. A facsimile is here

given (fig. 2) of a continuous record from a case of phthisis. This instrument is to be had of Messrs. Salt & Son. The price is 5*l.* 5*s.*

MR. WILLIAM THOMAS'S DIAGNOSIS CASE.

This is a case containing all the various instruments and appliances used in diagnosis, and is a desideratum for every medical man, whether he be consultant, specialist, or general practitioner.

The following is a list of contents :—Sims's Vaginal Speculum. Three Nested Fergusson's Specula, Bivalve Rectum Speculum, Nasal Speculum, Laycock's Spatula, Ear Syringe, Urinometer and Trial Glass, Vulcanite Case for Tests—viz. Caustic Potash, Cupric Test, and Nitric Acid, Three Nested Ear Specula, Cyrtometer, Spring Measuring Tape, Stethoscope, Ophthalmoscope, Exploring Trocar, Simpson's Sound, Male and Female Catheter combined, Exploring Sound, Clinical Thermometer, Thompson's Sound and Searcher, Spirit Lamp, with a vacant space for sundries. The various articles are neatly arranged and securely packed in their places in a neat leather case. It



will be found equally useful in the consulting room or when carried by the practitioner on his round. The diagnosis case has been manufactured by Messrs. Salt & Son, Birmingham, and the price is 10*l.* 10*s.*

MISCELLANY

Dr. Fischer, of Trieste, has, according to 'New Remedies,' made experiments with cellulose as a dressing for wounds, and has found it, when moistened with warm water or some medicated solution, and afterwards covered with an impervious fabric, to be a most excellent application in all cases where heat and moisture appear to be indicated. Its chief advantages are—1. It is absolutely free from substances capable of exciting putrefaction. 2. It has a very low specific gravity. 3. It produces neither eczema nor erythema upon the epidermis. 4. It retains moisture and heat perfectly for more than twenty-four hours. 5. It never adheres to granulating wounds on the surface of the skin. 6. It adapts itself perfectly to the outline of the place of application. 7. It is much cheaper than other materials heretofore used for similar purposes. Dr. Fischer has used, so far, only plain water or weak solution of carbolic acid or iodoform in the case of suppurating buboes, and has obtained uniformly satisfactory results.

During the past summer the floating hospital of St. John's Guild made thirty-two regular excursions, on which 19,564 children and mothers were carried, and twelve extra excursions, on which 9,625 were carried, making a total of 29,189 persons who were given the benefit of sea air. The Seaside Nursery of the Guild at Cedar Grove, Staten Island, was also filled to its utmost capacity during thr greater part of the summer.

Medical Colleges for Women in Canada.—The Toronto correspondent of the *New York Med. Record* says that for some time there has been a good deal of agitation in favour of medical colleges for women. During the session of last winter several ladies were attending the medical school in Kingston. Exception was taken by those ladies to some remarks made by the lecturer on physiology. The men in the class became noisy, and made statements that greatly offended the ladies. The students threatened to leave the school. After some negotiations

between the students and professors, the matter was adjusted by the latter agreeing to give separate instructions to the men and women. This difficult made it apparent that co-education would not work, and both Kingston and Toronto are on the eve of organising a college for the fair sex. Dr. Lavell has been chosen as Dean of the former, and Dr. M. Barrett of the latter.

The Mason Science College, Birmingham.—This institution, founded and endowed by the late Sir Josiah Mason, is doing good work in the midland counties in classical and scientific education. There are two departments: a Science Department, which comprises mathematics, physics, chemistry and metallurgy, zoology and comparative anatomy, botany and vegetable physiology, physiology, geology and mineralogy, and civil and mechanical engineering; and an Arts Department, in which the subjects taught are Greek, Latin, English language and literature, French, and German. The institution is of an elementary as well as of an advanced character. The College is open to females as well as males; and an examination of the list of students, published in the *Calendar*, shows that it is largely attended by ladies, several of whom occupy very honourable positions in the prize lists. In addition to the ordinary classes, there are evening classes in all the subjects. The lectures and practical instructions in physiology, chemistry, and botany are attended by the medical pupils of the Queen's College, and are recognised by the licensing bodies in medicine as part of the instruction given in the last-named institution.

The Chair of Anatomy in the University of Dublin.—Dr. D. J. Cunningham, one of the professors of anatomy in the school of the Royal College of Surgeons in Ireland, has been elected to the professorship of anatomy and surgery in the School of Physic of the University of Dublin, vacated by the appointment of Professor Alexander Macalister to the chair of anatomy in the University of Cambridge. This causes a vacancy for a professor of anatomy in the College of Surgeons, the election to which, by the Council of the College, will probably take place on November 1. The emoluments of the professorship average 600*l.* yearly, and the professor is required to devote his entire time to the teaching of anatomy and practical histology.

Telegraphy and Health.—The *Boston Medical and Surgical Journal* says that the conspicuous position in which telegraphers have been placed by the strike in America has served, among other things, to call attention to the great demands made by that calling upon the nervous system of those who follow it. The first-class operators all read by sound, and in a large office where a hundred or more receivers are all buzzing at once, the strain upon the organ of hearing as well as upon the cerebral centre of audition, protracted as it is through ten hours daily, is very great. Of course, in this as in every other occupation, it is true to a certain extent that 'custom makes it a thing of easiness,' yet to discriminate between the longer and shorter dashes in an instrument clicking at the rate of a very large number of words per minute involves, none the less, a very close exercise of the attention even when it is done only for the regular working hours of the day, while those operators who have been obliged since the strike to work double time have been excessively exhausted. The nervous and muscular energy expended by a rapid sender is perhaps still greater. It is on the whole surprising that 'writer's cramp' is not more frequent than it is among telegraphers. It is said that few operators are good for much after the age of thirty-five years.

The Noxiousness of Flies.—In an article in the *Gazzetta degli Ospitali* for July 25, Dr. Grassi sbows by several experiments the dangers to which we are exposed by flies. He has found unchanged in the fæces of flies the eggs of various kinds of worms, including the tape-worm, the thread-worm, and the whip-worm, having previously tempted the flies to a repast containing these delicacies. The intestines, therefore, of insects, not less than their feet and wings, may be carriers of infection. He invites the attention of naturalists to the subject. The problem he sets before himself is to destroy flies. He hopes to be able next year to lay a large number of additional facts before the public.

Marine Laboratories on the Coast.—In connection with a report submitted in the Biographical Section of the recent Congress of the British Association for the Advancement of Science, at Southport, on the Scottish Zoological Station on the Moray Firth, the President (Professor Ray Lankester, F.R.S.) described the station as altogether unworthy of the name; it was simply a wooden shed to shelter a naturalist while making microscopical observations. The committee of the section had passed a resolution which would be placed before the General Committee of the International Fisheries Exhibition, requesting the committee to use a portion of the surplus they would have in hand at the end of the exhibition in establishing a marine laboratory. One of the most remarkable results of the Fisheries Exhibition had been that the conclusion had been arrived at, that they knew next to nothing of the habits and life-history of the most important fishes. It was almost impossible to have satisfactory legislation about oysters, mussels, much less about herrings, soles, and such fish, because so little was known about them. Now, if there were such a laboratory as was suggested, a great deal of knowledge would be accumulated, not in a year or two, but in the course, say, of ten years. They would then be able to see when fishing should and when it should not be allowed, what nets were injurious to the fish and what should be tolerated, what amount of fish should be taken, and so on. Professor Marshall, of Manchester, concurred as to the importance of establishing a marine laboratory. The great utility of such an institution would be, that the experiments would be carried out on a large scale by trained naturalists in a place properly equipped with the necessary apparatus. A station was being established at Granton, near Edinburgh, with the surplus funds of the Scottish Fisheries Exhibition; and there could be no more suitable application of a portion of the surplus funds of the International Exhibition than that suggested by the president. Professor Haddow, of Dublin, said what should be in the first instance provided was large tanks in which certain forms should be kept, workshops, and reagents. There should be a steam launch in connection with the establishment, several boats, dredging appliances, and nets. There should also be a naturalist in charge of the station, as local knowledge in dredging for animals was of the utmost importance. Though the utility of such an institution was only a secondary consideration, this was the view which appealed to the public, and there could be no doubt that we did not now reap from the sea its due harvest. It was the work of the naturalist to inquire, for instance, why it was that fish were now so scarce in Dublin Bay and on the eastern coast of Ireland. Mr. Carpenter said the American Fisheries Commission was not only investigating the natural history of the fishes, but they were also exploring the sea bottom along the sea board of the United States. He brought this matter before Mr. Evans, Hydrographer of the Admiralty, and suggested that the Admiralty should afford the means of making similar exploration by providing steam launches, dredges, and so on, and he had reason to believe that if a well-considered plan were presented by the association, the Admiralty would not be unwilling to give the funds and appliances necessary for the purpose. Professor Lankester pointed out that, while recognising the enterprise of the Scotch naturalists in establishing the station on the Firth of Forth, a much larger and more thoroughly equipped establishment was required. He did not know that they should raise the question of site, as each naturalist would have his own favourite locality. Probably, however, no more suitable situation for the laboratory could be found than Godlington, near Torquay.

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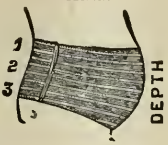

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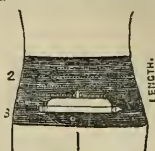

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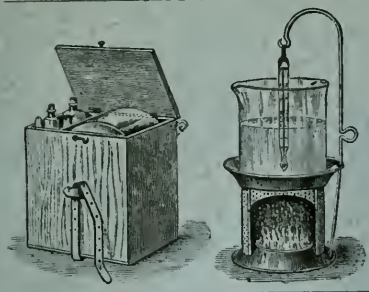

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From 'THE LANCET,' December 18th, 1869.

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NEPENTHE may be used with perfect safety in every case where an opiate is indicated, and from the peculiar process by which it is prepared, it is deprived of all constituents which render the Tinctura Opii, and other forms of Opium, in very numerous instances wholly inadmissible.

It is also of uniform strength, and in this respect possesses high advantages.

NEPENTHE does not produce headache, stupor, giddiness, depression of spirits, diminution of nervous energy, prostration of strength, nor constipation, but induces natural and refreshing sleep.

DOSE—THE SAME AS THAT OF TINCTURA OPII. PRICE 8*s.* PER LB.
DOUBLE STRENGTH NEPENTHE FOR SUBCUTANEOUS INJECTION. PRICE 16*s.* PER LB.

MAY BE PROCURED DIRECT FROM THE SOLE MANUFACTURERS,

Ferris, Boorne, Townsend, and Boucher,

WHOLESALE AND EXPORT DRUGGISTS, BRISTOL,

And through all leading Wholesale and Retail Chemists in Great Britain and the Colonies.

NOTICE.—Messrs. FERRIS & CO. are the ONLY manufacturers of Nepenthe, and medical gentlemen are especially cautioned against using any preparation which does not bear their name and label.

Nepenthe is registered under the Trade Marks Act, and protected by a facsimile of our signature pasted over each cork, and is sent out in bottles from four ounces upwards, bearing a label in white letters upon a green ground.

N.B. Two pounds of Nepenthe, or one pound of Nepenthe and three pounds of Ferris & Co.'s Syrup of Chloral, will be sent, carriage paid, to any Railway Station on receipt of P.O.O. for Sixteen Shillings.

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